Rocky Flats Environmental Technology Site

RECONNAISSANCE LEVEL CHARACTERIZATION REPORT (RLCR)

AREA 1 CLOSURE PROJECTS

Buildings T891P and T891Q

REVISION 0

July 24, 2002

CLASSIFICATION REVIEW NOT REQUIRED PER EXEMPTION NUMBER CEX-005-02

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July 24, 2002

Reviewed by: _____ Date: 7/25/02
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ABBREVIATIONS/ACRONYMS

ACM	Asbestos containing material
Be	Beryllium
CDPHE	Colorado Department of Public Health and the Environment
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act
$DCGL_{EMC}$	Derived Concentration Guideline Level – elevated measurement comparison
$DCGL_W$	Derived Concentration Guideline Level – Wilcoxon Rank Sum Test
D&D	Decontamination and Decommissioning
DDCP	Decontamination and Decommissioning Characterization Protocol
DOE	U.S. Department of Energy
DPP	Decommissioning Program Plan
DQA	Data quality assessment
DQOs	Data quality objectives
EPA	U.S. Environmental Protection Agency
FDPM	Facility Disposition Program Manual
HVAC	Heating, ventilation, air conditioning
HSARs	Historical Site Assessment Reports
IHSS	Individual Hazardous Substance Site
IWCP	Integrated Work Control Package
K-H	Kaiser-Hill
LBP	Lead-based paint
LLW	Low-level waste
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
NORM	Naturally occurring radioactive material
NRA	Non-Rad-Added Verification
OSHA	Occupational Safety and Health Administration
PARCC	Precision, accuracy, representativeness, comparability and completeness
PCBs	Polychlorinated Biphenyls
PDS	Pre-demolition survey
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RFFO	Rocky Flats Field Office
RLC	Reconnaissance Level Characterization
RLCR	Reconnaissance Level Characterization Report
RSP	Radiological Safety Practices
SVOCs	Semi-volatile organic compounds
TCLP	Toxicity Characteristic Leaching Procedure
TSA	Total surface activity
VOCs	Volatile organic compounds

EXECUTIVE SUMMARY

A Reconnaissance Level Characterization (RLC) was performed to enable facility "Typing" per the DPP (10/8/98) and compliant disposition and waste management of Buildings T891P and T891Q. Because these buildings were anticipated to be Type 1 facilities, the characterization was performed in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP). All facility surfaces were characterized in this RLC, including the interior and exterior surfaces [i.e., floors (slabs), walls, ceilings and roofs]. Environmental media beneath and surrounding the facilities were not within the scope of this RLCR and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA.

The RLC encompassed both radiological and chemical characterization to enable compliant disposition and waste management pursuant to the D&D Characterization Protocol (MAN-077-DDCP). The characterization built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Report.

Results indicate that no radiological contamination exists in excess of the PDSP unrestricted release limits of DOE Order 5400.5. All bulk samples of suspect friable and non-friable building materials were negative for asbestos. All beryllium sample results were less than 0.1 $\mu g/100cm^2$. Fluorescent light ballasts may contain PCBs. Any PCB ballasts, asbestos containing materials, and hazardous-waste items will be managed and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations. All demolition debris will be managed in compliance with regulations governing PCBs (40 CFR 761), and Environmental Compliance Guidance #27, *Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal,* as applicable.

Based upon this RLCR and subject to concurrence by the CDPHE, Buildings T891P and Q are considered Type 1 facilities, and can be removed or demolished. To ensure that the buildings remain free of contamination and that RLC data remain valid, isolation controls have been established, and the facilities have been posted accordingly.

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1 INTRODUCTION

A Reconnaissance Level Characterization (RLC) was performed to enable compliant disposition and waste management of Buildings T891P and T891Q. Because these buildings were anticipated to be Type 1 facilities, a PDS characterization was performed. All facility surfaces were characterized in this RLC, including the interior and exterior surfaces of the facilities [i.e., floors (slabs), walls, ceilings and roofs]. Environmental media beneath and surrounding the facilities were not within the scope of this RLC Report (RLCR) and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA.

As part of the Rocky Flats Environmental Technology Site (RFETS) Closure Project, numerous facilities will be removed or demolished. Among these are Buildings T891P and T891Q. The locations of these facilities are shown in Attachment A. These facilities no longer support the RFETS mission and need to be removed or demolished to reduce Site infrastructure, risks and/or operating costs.

Before the facilities can be removed or demolished, a Pre-Demolition Survey (PDS) must be conducted; this document presents the PDS results. The PDS was conducted pursuant to the Decontamination and Decommissioning Characterization Protocol (MAN-077-DDCP) and the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP). The PDS built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Report.

1.1 Purpose

The purpose of this report is to communicate and document the results of the RLC effort. PDS is performed before building removal or demolition to define the final radiological and chemical conditions of a facility. Final conditions are compared with the release limits for radiological and non-radiological contaminants. PDS results will enable project personnel to make final disposition decisions, develop related worker health and safety controls, and estimate waste volumes by waste types.

1.2 Scope

This report presents the final radiological and chemical conditions of Buildings T891P and T891Q. Environmental media beneath and surrounding the facilities are not within the scope of this RLCR and will be addressed using the Soil Disturbance Permit process and in compliance with RFCA.

1.3 Data Quality Objectives

The Data Quality Objectives (DQOs) used in designing this RLC were the same DQOs identified in the Pre-Demolition survey Plan for D&D Facilities (MAN-127-PDSP.) Refer to section 2.0 of MAN-127-PDSP for these DQOs.

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2 HISTORICAL SITE ASSESSMENT

Facility-specific Historical Site Assessments (HSAs) were conducted to understand the facility histories and related hazards. The assessments consisted of facility walkdowns, interviews, and document review, including review of the Historical Release Report (refer to the D&D Characterization Protocol, MAN-077-DDCP). Results were used to identify data gaps and needs, and to develop radiological and chemical characterization packages. Results of the facility-specific HSAs were documented in facility-specific Historical Site Assessment Reports (HSARs) (refer to Attachment B). In summary, the HSARs identified no potential for radiological and chemical hazards, except the potential for asbestos containing materials and PCBs in paint and light ballasts.

3 RADIOLOGICAL CHARACTERIZATION AND HAZARDS

Buildings T891P and T891Q were characterized for radiological hazards per the PDSP. Radiological characterization was performed to define the nature and extent of radioactive materials that may be present on the facility surfaces. Measurements were performed to evaluate the contaminants of concern. Based upon a review of historical and process knowledge, building walk-downs, and MARSSIM guidance, a Radiological Characterization Plan was developed during the planning phase that describes the minimum survey requirements (refer to the RISS Characterization Project files).

Survey packages were developed in accordance with Radiological Safety Practices (RSP) 16.01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation and Closure*. Total surface activity (TSA), removable surface activity (RSA), and scan measurements were collected in accordance with RSP 16.02 *Radiological Surveys of Surfaces and Structures*. Radiological survey data were verified, validated and evaluated in accordance with RSP 16.04, *Radiological Survey/Sample Data Analysis*. Quality control measures were implemented relative to the survey process in accordance with RSP 16.05, *Radiological Survey/Sample Quality Control*. Radiological survey data, statistical analytical results, and survey locations are presented in Attachment C, Radiological Data Summary and Survey Maps. The radiological survey unit packages are maintained in the RISS Characterization Project files.

TSA measurements (15 random/10 biased and 2 QC) and RSA measurements (15 random/10 biased) were taken within each survey unit, and 5% scan surveys were performed within each survey unit. Initial survey locations 5,15, and 23 for T891P (survey unit G15-A-007) had elevated contamination levels. These locations were resurveyed after a 48 hour decay period. All re-survey results were below the $DCGL_W$ and are considered free of contamination. The re-survey results are listed in Attachment C Radiological Data Summary - PDS. The PDS confirmed that the facilities do not contain radiological contamination above the surface contamination guidelines provided in the PDSP. Isolation control postings are displayed on affected structures to ensure no radioactive materials are introduced.

4 CHEMICAL CHARACTERIZATION AND HAZARDS

Buildings T891P and T891Q were characterized for chemical hazards per the PDSP. Chemical characterization was performed to determine the nature and extent of chemical

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contamination that may be present on or in the facilities. Based upon a review of historical and process knowledge, visual inspections, and PDSP DQOs, additional sampling needs were determined. A Chemical Characterization Package (refer to RISS Characterization Project files) was developed during the planning phase that describes sampling requirements and the justification for the sample locations and estimated sample numbers. Contaminants of concern included asbestos, beryllium, RCRA/CERCLA constituents, and PCBs. Refer to Attachment D, Chemical Data Summaries and Sample Maps, for details on sample results and sample locations.

4.1 Asbestos

A survey of building materials suspected of containing asbestos was conducted in the aforementioned buildings in accordance with the PDSP. A CDPHE-certified asbestos inspector conducted the inspection and sampling in accordance with the *Asbestos Characterization Protocol, PRO-563-ACPR, Revision 1.* Building materials suspected of containing asbestos were identified for sampling at the discretion of the inspector.

All T891Q bulk samples of suspect friable and non-friable building materials were negative for asbestos. After visual and tactile inspections of Building T891P (built in 1994), no building materials suspected of containing asbestos were located. Therefore, no samples were taken in T891P, and no data were entered in Attachment D. Asbestos laboratory analysis data and location maps are contained in Attachment D, "Chemical Data Summaries and Sample Maps." Maps that did not contain any sample locations were not included in this report.

4.2 Beryllium (Be)

Based on the HSARs and personnel interviews, these buildings were anticipated Type 1 facilities. There was not, however, adequate historical and process knowledge to conclude that beryllium was not used or stored in these buildings. Therefore, biased beryllium sampling was performed in accordance with the PDSP and the *Beryllium Characterization Procedure, PRO-536-BCPR, Revision 0, September 9, 1999.* Biased sample locations corresponded with the most probable areas of dust accumulation (including beryllium dust), assuming airborne deposition.

All beryllium smear sample results were less than 0.1 $\mu g/100cm^2$. Beryllium laboratory sample data and location maps are contained in Attachment D, "Chemical Data Summaries and Sample Maps." Maps that did not contain any sample locations were not included in this report.

4.3 RCRA/CERCLA Constituents [including metals and volatile organic compounds (VOCs)]

Based on the HSARs, interviews and facility walkdowns of buildings T891P and T891Q, there are no RCRA/CERCLA concerns. Neither of the buildings have a history of spills nor releases of RCRA/CERCLA regulated materials, and there were no observations to suggest contamination. Therefore, RCRA/CERCLA constituent sampling was not performed in these facilities.

The buildings may contain some RCRA regulated items, such as mercury thermostats, fluorescent light bulbs, mercury vapor light bulbs, mercury containing gauges, circuit boards, leaded glass and lead-acid batteries. These items will be removed prior to demolition and managed in accordance with the CHWA.

Sampling for lead in paint in the facilities was not performed. Environmental Waste Compliance Guidance #27, *Lead-based Paint (LBP) and Lead-based paint Debris Disposal*, states that LBP debris generated outside of currently identified high contamination areas shall be managed as non-hazardous (solid) wastes, and additional analysis for characteristics of hazardous waste derived from LBP is not a requirement for disposal.

4.4 Polychlorinated Biphenyls (PCBs)

Based on the HSARs, interviews and facility walkdowns of buildings T891P and T891Q, no PCB-containing equipment or wastes were ever present in the buildings, making the potential for PCB contamination resulting from spills highly unlikely therefore, PCB sampling was not performed. Based on the age of buildings (constructed after 1980), paints used are not expected to contain PCBs.

Because these facilities may contain fluorescent light ballasts containing PCBs, fluorescent light fixtures will be inspected to identify PCB ballasts during removal operations. PCB ballasts will be identified based on factors such as labeling (e.g., PCB-containing and non-PCB-containing), manufacturer, and date of manufacturing. All ballasts that do not indicate non-PCB-containing are assumed to be PCB-containing.

5 PHYSICAL HAZARDS

Physical hazards associated with T891P and T891Q consist of those common to standard industrial environments and include hazards associated with energized systems, utilities, and trips and falls. Refer to the Site Safety Analysis Report (PADC-1998-00662). There are no unique hazards associated with the facilities. The facilities have been relatively well maintained and are in good physical condition, and therefore, do not present hazards associated with building deterioration. Physical hazards are controlled by the Site Occupational Safety and Industrial Hygiene Program, which is based on OSHA regulations, DOE orders, and standard industry practices.

6 DATA QUALITY ASSESSMENT

Data used in making management decisions for decommissioning of T891P and T891Q, and consequent waste management, are of adequate quality to support the decisions documented in this report. The data presented in this report (Attachments C and D) were verified and validated relative to DOE quality requirements, applicable EPA guidance, and original DQOs of the project.

In summary, the Verification and Validation (V&V) process corroborates that the following elements of the characterization process are adequate:

- the *number* of samples and surveys;
- the *types* of samples and surveys;

- the sampling/survey process as implemented "in the field"; and,
- the laboratory analytical process, relative to accuracy and precision considerations.

Details of the DQA are provided in Attachment E.

7 DECOMMISSIONING WASTE TYPES AND VOLUME ESTIMATES

The demolition and disposal of T891P and T891Q will generate a variety of wastes. Estimated waste types and waste volumes are presented below by facility. All wastes can be disposed of as sanitary waste, except PCB Bulk Product Waste, and hazardous-waste items (mercury thermostats, fluorescent light bulbs, mercury vapor light bulbs, mercury containing gauges, circuit boards, leaded glass and lead-acid batteries). There is no radioactive waste. PCB ballasts, and hazardous-waste items will be removed prior to removal or demolition and disposed of pursuant to Site waste management procedures.

Waste Volume Estimates and Material Types							
Facility	**Concrete** (cu ft)	**Wood** (cu ft)	**Metal** (cu ft)	**Corrugated Sheet Metal** (cu ft)	**Wall Board** (cu ft)	**ACM** (cu ft)	**Other Waste** (cu ft)
T891P	None	275	250	350	450	TBD	50
T891Q	None	300	300	350	450	TBD	N/A

8 FACILITY CLASSIFICATION AND CONCLUSIONS

Based on the analysis of radiological, chemical and physical hazards, T891P and T891Q are classified as RFCA Type 1 facilities pursuant to the RFETS Decommissioning Program Plan (DPP; K-H, 1999). The Type 1 classification is based on a review of historical and process knowledge, and newly acquired RLC data, and will be subject to concurrence by the Colorado Department of Public Health and the Environment (CDPHE).

The RLC of T891P and T891Q was performed in accordance with the DDCP and PDSP, all PDSP DQOs were met, and all data satisfied the PDSP DQA criteria. These facilities do not contain radiological, beryllium or asbestos waste. Any PCB ballasts or hazardous-waste items will be removed prior to removal or demolition, and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations. All demolition debris will be managed in compliance with regulations governing PCBs (40 CFR 761), and Environmental Compliance Guidance #27, *Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal,* as applicable. Environmental media beneath and surrounding the facilities will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA.

To ensure that the Type 1 facilities remain free of contamination and that PDS data remain valid, isolation controls have been established, and the facilities are posted accordingly.

9 REFERENCES

DOE/RFFO, CDPHE, EPA, 1996. Rocky Flats Cleanup Agreement (RFCA), July 19, 1996.

DOE Order 5400.5, "Radiation Protection of the Public and the Environment."

EPA, 1994. "The Data Quality Objective Process," EPA QA/G-4.

K-H, 1999. Decommissioning Program Plan, June 21, 1999.

MAN-131-QAPM, *Kaiser-Hill Team Quality Assurance Program*, Rev. 1, November 1, 2001.

MAN-076-FDPM, *Facility Disposition Program Manual*, Rev. 3, January 1, 2002.

MAN-077-DDCP, *Decontamination and Decommissioning Characterization Protocol*, Rev. 3, April 23, 2001.

MAN-127-PDSP, *Pre-Demolition Survey Plan for D&D Facilities*, Rev. 0, April 23, 2001.

MARSSIM - Multi-Agency Radiation Survey and Site Investigation Manual (NUREG-1575, EPA 402-R-97-016).

PRO-475-RSP-16.01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation, and Closure,* Rev. 1, May 22, 2001.

PRO-476-RSP-16.02, *Pre-Demolition (Final Status) Radiological Surveys of Surfaces and Structures*, Rev. 1, May 22, 2001.

PRO-477-RSP-16.03, *Radiological Samples of Building Media*, Rev. 1, May 22, 2001.

PRO-478-RSP-16.04, *Radiological Survey/Sample Data Analysis for Final Status Survey*, Rev. 1, May 22, 2001.

PRO-479-RSP-16.05, *Radiological Survey/Sample Quality Control for Final Status Survey*, Rev. 1, May 22, 2001.

PRO-563-ACPR, Asbestos Characterization Procedure, Revision 0, August 24, 1999.

PRO-536-BCPR, Beryllium Characterization Procedure, Revision 0, August 24, 1999.

RFETS, Environmental Waste Compliance Guidance #25, Management of Polychlorinated Biphenyls (PCBs) in Paint and Other Bulk Product Waste During Facility Disposition.

RFETS, Environmental Waste Compliance Guidance #27, Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal.

RFCA Standard Operation Protocol for Recycling Concrete, September 28, 1999.

RFETS, Historical Site Assessment Reports for T891P & Q, July 2001 and June 2002.

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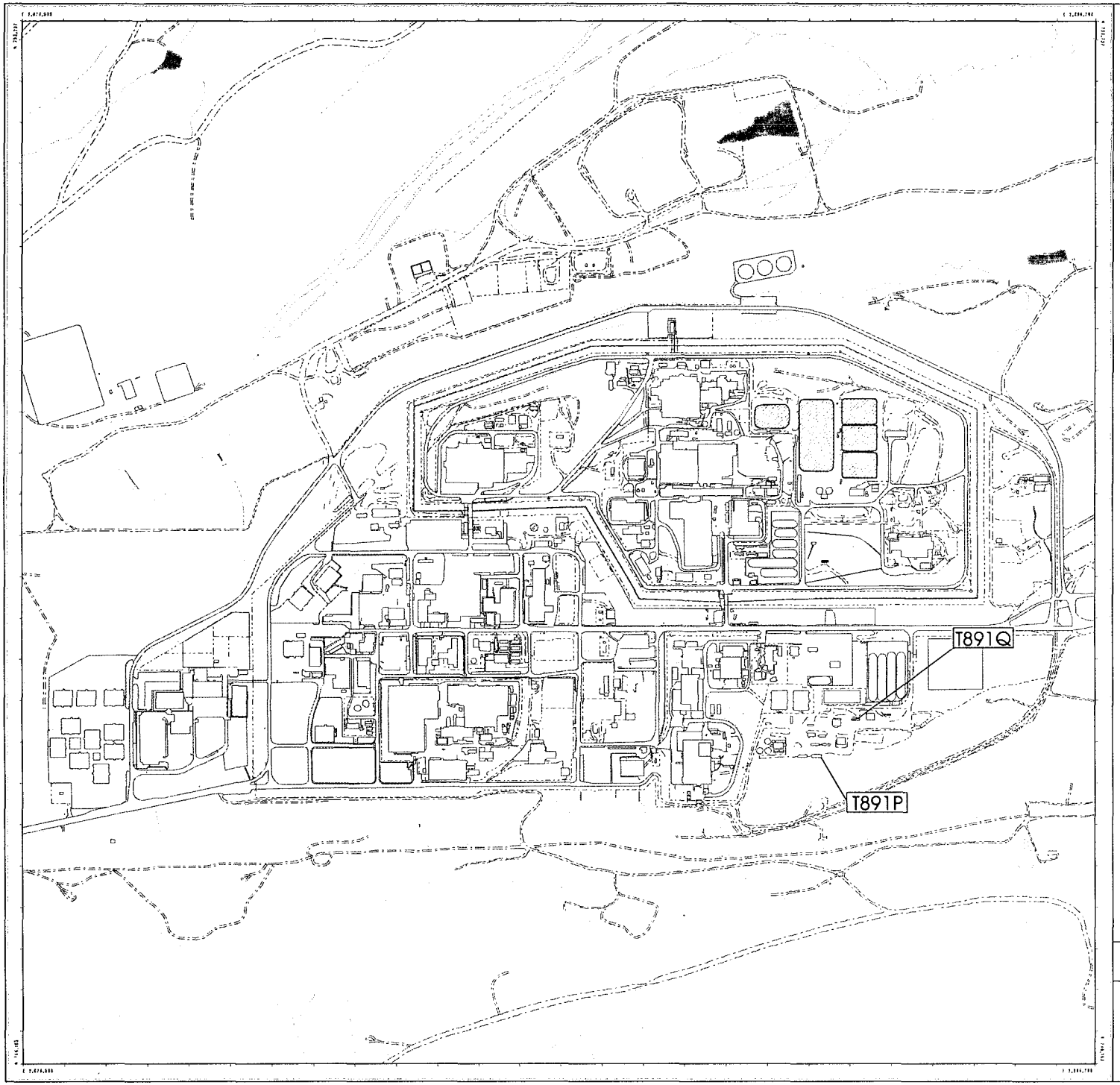
ATTACHMENT A

Facility Location Map



T891 Area

Standard Map Features

- Buildings and other structures
- Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas.
Digitized from the orthophotographs. 1/95

N

Scale = 1 : 12450
1 inch represents approximately 1038 feet
250 0 500 1000 ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

GIS Dept. 303-966-7707

Prepared by:
DynCorp
THE ART OF TECHNOLOGY

Prepared for:
KAISER-HILL COMPANY

MAP ID: FY 2002

June 27, 2002

NT_Svr w:/projects/fy2002/02-0689/T891-Over.cdr

ATTACHMENT B

Historical Site Assessment Report

Facility ID: Trailers T891B, T891D, T891E, T891F, T891G, T891O, T891P, T891R, T891V, T893A and T893B.
Anticipated Facility Type (1, 2, or 3): All of the trailers in this cluster are anticipated Type 1 facilities.

This facility - specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Physical Description

Trailer T891B

T891B is an approximately 975 square-foot wide office trailer, which was acquired in 1993 and is located east of the B891 Consolidated Water Treatment Facility. This trailer is approximately 14-feet wide and 65-feet long with two entrance doors on the north side of the structure. One entry has a wooden stair attached to a 4-foot x 4-foot deck leading to the entry door. The other entry has a wooden handicapped ramp attached to a 4-foot x 4-foot deck leading to the entry door. The trailer has aluminum siding, and the skirting is painted pressboard. T891B has a hard-walled office on the east end of the trailer, another hard-walled office on the west end, and a large work area in the center. The ceiling is a drop ceiling with 2-foot by 4-foot acoustical tiles with recessed lighting. The floor is 12-inch vinyl tile. The walls in this trailer are a vinyl-covered wallboard and are commonly constructed with steel studs. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

T891B uses electrical heat and electrical air conditioning. This trailer is not hooked up to plant water or plant sanitary systems. Fire protection is provided by individual wall-mounted fire extinguishers. T891B is not connected to the LSDW system or the fire alarm system.

Trailer T891D

T891D is an approximately 720 square-foot general field office trailer, which was acquired in 1993 and is located in the 800-Area contractor support yard. This trailer measures approximately 15-feet by 48-feet and has 2 entrance doors on the north side of the trailer. Both entries have wooden stairs attached to a 4-foot x 4-foot deck leading the entry door. Both entrances have wooden enclosures. The siding and skirting for the trailer are painted wood. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

T891D is configured with an office at each end of the trailer and a large work area in the center, which is divided into partitioned work areas. The interior walls and ceilings are constructed of plasterboard, and the lights are surface mounted on the plasterboard ceilings. Trailer construction during this time period commonly used medal studs. The floors are 12-inch vinyl tiles. The fire suppression is provide by wall-mounted fire extinguishers. T891D uses electrical heat and electrical air conditioning. This trailer has hook ups to plant water and plant sanitary systems and has a restroom. T891D is not connected to the LSDW system or the fire alarm system.

Trailer T891E

T891E is an approximately 1440 square-foot general field office trailer, which was acquired in 1991 and is located in the 800-Area contractor support yard. This trailer is approximately 30-feet wide x 48-feet long. The exterior is painted wood siding with painted wood skirting. The trailer has two entrances on the south side of the structure. One entrance has wooded steps connected to a 4-foot x 4-foot deck, which leads to the entry door. The other entrance has wooden steps connected to a 4-foot x 8-foot deck, which also acts as a dock. Both entrances have wooden enclosures. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

No

T891E is configured with two offices on each end of the trailer with two large work areas in the center. The interior walls and ceiling are constructed of plasterboard with the light fixture surface mounted on the plasterboard. Trailer construction during this time frame commonly uses metal studs. The floors are 12-inch vinyl tiles. The fire suppression is wall-mounted fire extinguishers. T891E uses electrical heat and electrical air conditioning. T891E has plant water and plant sanitary hook ups and has a restroom. T891E is not connected to the LSDW system or the fire alarm system.

Trailer T891F

T891F is an approximately 720 square-foot field office trailer, which was acquired in 1991 and is located in the 800-Area contractor support yard. The Site Facility List said this trailer was acquired in 1993. The RFETS Facility List states this trailer was purchased in 1993. A visual inspection indicated that the trailer was likely constructed some time in the late 1970's or early 1980's. This trailer is approximately 15-feet wide and 48-feet long. The exterior is painted wood siding with painted wood skirting. T891F has two entries on the south side of the building. Both of the entries have wooden stairs attached to a 4-foot x 4-foot deck, which leads to the entry door. The roof is asphalt shingle. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

The interior is configured with an office on each end of the trailer and a large work area in the center. The interior walls are wood paneling and the floors were 12-inch vinyl tiles. Trailers manufactured during the 1970's and 1980's have either wood or steel wall studs. The ceiling is 4-foot x 12-foot vinyl-covered wallboard with surface mounted light fixtures. T891F has electric heat and air conditioning. T891F has plant water and plant sanitary hook ups and has a restroom. Fire suppression is provided by wall-mounted fire extinguishers. T891F is not connected to the LSDW system or the fire alarm system.

Trailer T891G

T891G is an approximately 720 square-foot field office trailer, which was acquired in 1993. This trailer is approximately 15-feet wide by 48-feet long and is located in the 891 contractor yard. The exterior is painted wood siding with a painted wood skirting. The trailer has two entrances on the north side of the structure. Both entrances have wooded steps connected to a 4-foot x 4-foot deck, which leads to the entry door. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

This trailer could not be entered for an internal walkdown. The interior is configured with an office on each end of the trailer and a large work area in the center. The interior wall is vinyl-covered wallboard, and the floor is 12-inch vinyl tile. The ceiling is 2-foot x 4-foot acoustical tile ceiling with recessed lighting. Trailer construction during this time period commonly used medal studs. The building has propane heat and the air conditioning. The building is not connected to plant water or plant sanitary hook ups. Fire suppression is provided by wall-mounted fire extinguishers. T891G is not connected to the LSDW system or the fire alarm system.

Trailer T891O

Trailer T891O is an approximately 2880 square-foot general field office trailer, which is approximately 60-feet by 48-feet and was acquired in 1993 and is located in the 891 contractor yard. This trailer has painted wood siding with painted wood skirting. There are 2 access doors on the south side of the structure and one access door on the east side of the trailer. The two south-side access doors each have wood stairs attached to a 4-foot by 4-foot deck leading to the entry door. The east side access door has wood stairs and a 4-foot by 8-foot deck leading to the door and is also used as a loading dock. The roof construction could not be determined from this ground-inspection. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

T891O is configured with hard-walled offices, several larger conference rooms, and large work areas. The interior walls and ceiling are constructed of 4-foot x 10-foot vinyl-covered wallboard with the light fixture surface mounted on the wallboard. The walls on a trailer of this age are usually constructed with steel studs. The floors are 12-inch vinyl tiles. The fire suppression is individual wall-mounted fire extinguishers. T891O uses electrical heat and electrical air conditioning. T891O has no plant water and plant sanitary hook ups. T891O is not connected to the LSDW system or the fire alarm system.

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Trailer T891P

T891P is an approximately 720 square-foot general field office trailer, and is approximately 15-feet wide and 48-feet long. This trailer was placed into service in 1994 and is located east of B891. T891P has aluminum siding and aluminum skirting. There are two entrances on the north side of the trailer. Both entrances have wooden stairs attached to a 4-foot x 8-foot deck, which leads to the entry door. One of the entrances has a handicapped ramp. Both entrances have enclosures. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

T891P is configured with one office on each end of the trailer with a large work area in the center. The interior walls are vinyl-covered wallboard, and the ceiling is 2-foot by 4-foot acoustical drop ceiling with recessed lights. The floors are 12-inch vinyl tiles. Trailer construction during this time period commonly used medal studs. The fire suppression is individual wall-mounted fire extinguishers. T891P uses electrical heat and electrical air conditioning. T891P has no plant water and plant sanitary hook ups. T891P is not connected to the LSDW system or the fire alarm system.

Trailer T891R

Trailer T891R is an approximately 2880 square-foot general field office and sample shipping trailer, which is approximately 60-feet long by 48-feet wide. This trailer was acquired in 1993 and is located south east of the 904 pad. T891R has aluminum siding and aluminum skirting. There are 2 entry doors on the south side of the structure and three entry doors on the east side of the trailer. The two south-side access doors each have wood stairs attached to a 4-foot by 4-foot deck leading to the entry door. One of the south-side entrance doors has a wood enclosure. Two of the east-side access doors have wood stairs and a 4-foot by 4-foot deck leading to the entry door. The third door has a 4-foot by 8-foot deck and is also used as a loading dock. The roof construction could not be determined from the ground-level inspection. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

T891R is configured of hard-walled offices with several larger work areas and conference rooms. The interior walls are constructed of vinyl-covered wallboard, and the ceiling is a 2-foot x 4-foot acoustical drop ceiling with recessed light fixtures. The floors are 12-inch vinyl tiles. The fire suppression is individual wall-mounted fire extinguishers. T891R uses electrical heat and electrical air conditioning. T891R has no plant water or plant sanitary hook ups. T891R is not connected to the LSDW system or the fire alarm system.

Trailer T891V

Trailer T891V is an approximately 720 square-foot office field trailer located north east of B891. T891V was acquired in 1986 and is approximately 15-feet by 48-feet in size. This trailer has aluminum siding, aluminum skirting, and a tin roof. There are two entry doors on the south side of the trailer. Each entry has wood stairs attached to a 4-foot x 4-foot deck which leads to the entry door. Each entry has a wooden enclosure. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer walls were not accessible , but likely have insulation.

The interior floor is primarily vinyl-sheet covering, and one of the offices is carpeted. The interior walls are wood paneling. The interior ceiling is 4-foot x 8-foot vinyl-covered wallboard with surface mounted light fixtures. The trailer has a main work area in the center of the trailer and two smaller offices at each end of the trailer. Trailer construction during this time period commonly used medal studs. The fire suppression is individual wall-mounted fire extinguishers. T891V uses electrical heat and electrical air conditioning. T891V has plant water and plant sanitary hook ups and has a restroom. T891V is not connected to the LSDW system or the fire alarm system.

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Trailer T893A

T893A is an approximately 15,600 square-foot general field office trailer and was acquired in 1991. This modular trailer is approximately 120-feet wide by 130-feet long and is located south east of B865. B893A has corrugated metal siding with corrugated metal skirting. Trailer construction during this time period commonly used medal studs.

T893A has a total of 6 entrances. Three of the entrances are on the east side of the structure, and three are on the west side of the structure. The east and west side each have one entry constructed with wood steps leading to a 4-foot by 4-foot deck which leads to the entry door; one entry with wooden steps leading to a 4-foot by 8-foot deck which acts as a dock; and one entry constructed of a wooden handicapped ramp attached to a 4-foot by 4-foot deck leading to the entry door. All entries are covered with a wooden enclosure. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer walls were not accessible, but likely have insulation.

The interior is primarily a cubical layout, but has several hard-walled offices, conference rooms, and rest rooms. Interior walls are paper-covered wallboard on metal studs. The ceiling is a drop ceiling with 2-foot by 4-foot acoustical tiles and recessed lights. The floor is primarily covered with carpet except in the bathrooms and dock entranceways, which are covered with vinyl tile.

B893A has electrical heat and electrical air conditioning. The fire suppression system is a overhead sprinkler system with hand held fire extinguishers in some areas. This trailer is supplied water from the site water system and drains into the site sanitary system and has restrooms. T891A is connected to the LSDW system or the fire alarm system.

Trailer T893B

T893B is an approximately 15,600 square-foot general field office trailer and was acquired in 1991. This modular trailer is approximately 120-feet wide by 130-feet long and is located south east of B865. B893B has corrugated metal siding with corrugated-metal skirting. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer construction during this time period commonly used medal studs.

T893B has a total of 6 entrances. Three of the entrances are on the east side of the structure, and three are on the west side of the structure. The east and west side each have one entry constructed with wood steps leading to a 4-foot by 4-foot deck which leads to the entry door; one entry with wooden steps leading to a 4-foot by 8-foot deck which acts as a dock; and one entry constructed of a wooden handicapped ramp attached to a 4-foot by 4-foot deck leading to the entry door. All entries are covered with a wooden enclosure. An inspection of the roof could not be made from the ground-level walkdown. This trailer does not have roof drains or down spouts. Trailer walls were not accessible, but likely have insulation.

The interior is primarily a cubical layout, but has a few hard-walled offices and conference rooms. Interior walls are vinyl-covered wallboard on metal studs. The ceiling is a drop ceiling with 2-foot by 4-foot acoustical tiles and recessed lights. The floor is primarily covered with carpet except in the bathrooms and dock entranceways, which are covered with vinyl tile.

T893B has electrical heat and electrical air conditioning. The fire suppression system is a overhead sprinkler system with hand-held fire extinguishers in some areas. This trailer is supplied water from the site water system and drains into the site sanitary system and has restrooms. T891B is connected to the LSDW system or the fire alarm system.

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Historical Operations

T891B has historically been used as a general field office trailer. T891B also houses a field laboratory in the large work area in the center of the trailer. Although this area is called a laboratory, it is only used to store and ship B891 environmental samples and to calibrate field instruments such as pH, conductivity and temperature meters. At one time this area was used to store acids and bases to preserve water samples, which are now stored in B891. Samples are stored in a refrigerator labeled as a RMA. Sample size range from 1 L to 4 L. Sample matrixes are both liquids and solids. This field lab was moved to T891B from T891C in 1999.

T891D, T891E , T891F and T891G have historically been used as a general field trailer. Activities did not involve any hazardous substances or radioactive materials.

T891O has historically been a general field office trailer and has supported the Ground Water Monitoring Operations Group. Support activities included coordinating ground water sampling activities, sample management, and sample shipping. Support also involved filtering ground water samples prior to shipping to a laboratory for analysis. Samples filtered and managed in this trailer were environmental samples, which usually contain very low levels of radiological and chemical contamination. Room 12 and Room 10 of T891O are designated as a RMA for storing radioactive samples. Room 9 was used to store acids for groundwater sample preservation and other miscellaneous sampling supplies. This trailer was also used to coordinate lead-lined drum recycling activities.

T891P has historically been used as a general field office trailer, and currently supports the water treatment support organization and is also used to coordinate water treatment sampling activities. The west room of T891P is used for radiological monitoring (counting smears) by the water treatment support group and currently is posted as a RMA. The smears are collected for the release of samples from B891 as well as collected during operations and maintenance activities for the B891 Water Treatment Facility. The B891 Water Treatment Facility primarily treats groundwater, which is considered to have only very low levels of contamination.

T891R has historically been used as a general field office trailer and sample storage and shipping trailer. T891R historically supported the bioassay program and surface water support organization. The north end of the trailer was used to receive bioassay samples from RFETS employees. The surface Water Support Group used Room 7 as a radiological instrument calibration and instrument storage room. Room 7 also had an acid cabinet used to store acids used to preserve surface water samples. Room 9A was used to store material to package and ship surface water samples to offsite laboratories. The east end of the trailer had several refrigerators used to store samples at a controlled temperature until they could be shipped off-site for analysis. These refrigerators were labeled as a RMA. The trailer had no known radiological or hazardous operations other than those identified above.

T891V was currently empty, but was occupied by the CASI sampling organization to coordinate sampling activites. T891V was moved to its current location in 1997. Prior to 1997, T891V was labeled T690J and was located west of Building 881. T690J was used as an on-site analytical laboratory and sample preparation facility. The trailer at that time was equipped with gamma detectors and also used 2 chemical hoods to perform sample preparation activities (e.g., addition of acids and bases). This trailer was primarily used to prepare pond-crete samples for off-site shipment to an analytical laboratory for analysis.

T893A and T893B have historically been used as a general field office trailer. Activities did not involve any hazardous substances or radioactive materials.

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Current Operational Status

T891B is currently used as a general field office trailer, and recently the old RTG field lab was moved here. T891B currently houses the water treatment support group. T891D and T891E currently houses Surface Water Operation Support personnel and Buffer Zone Support personnel. T891F currently houses Surface Water Operation Support personnel.

T891G was emptied in July of 2001 and had housed Ecology support personnel.

T891O was emptied in June of 2001 of all personnel due to the increased background radiation from the waste stored on the 904 pad and B906.

T891P is currently being used as a general field office trailer by the water treatment support organization to coordinate water treatment sampling activities. The west room of T891P is used for radiological monitoring (counting swipes) by the water treatment support group and currently is posted as a RMA.

T891R was emptied of all personnel in May of 2001 due to the increased background radiation from the waste stored on the 904 pad and B906.

Trailer T891V was emptied in July 2001 due to the increased background radiation from the waste stored on the 904 pad and B906.

Trailer T893A and Trailer T893B currently houses the Material Stewardship Support Group.

Contaminants of Concern

Asbestos

Describe any potential, likely, or known sources of Asbestos: All of the T891 trailers and the T893A and T893B trailers are posted as "Potentially Containing Asbestos Material". No records of asbestos building inspections were found on any of these buildings.

Note: SME should evaluate and/or verify this information during the RLC/PDS process. SME may need to review additional documentation and perform additional interviews.

Beryllium (Be)

Describe any potential, likely, or known Be production or storage locations: None of the T891 trailers nor T893A and T893B trailers are on the RFETS list of known Be locations.

Summarize any recent Be sampling results: No recent Be sampling has been conducted .

Note: SME should evaluate and/or verify this information during the RLC/PDS process. SME may need to review additional documentation and perform additional interviews.

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Lead

Describe any potential, likely, or known sources of Lead (e.g., paint, shielding, etc.): Some trailers may contain lead-based paints, lead wiring, and lead solder. Trailer T891O has a WSRIC, which addresses the management of lead-lined drum recycling activities. T891O never stored any lead and only administered the paper work. The lead-lined drums were stored in seven cargo container east of T891C. The seven cargo containers storing the lead lined drums for re-cycling have been relocated to the south side of T886D and are used to provide area radiation shielding for the analytical activities provided by Eberline. No lead operations were known to have occurred in any of these trailers.

Note: SME should evaluate and/or verify this information during the RLC/PDS process. SME may need to review additional documentation and perform additional interviews.

RCRA/CERCLA Constituents

Describe any potential, likely, or known sources of RCRA/CERCLA constituents (e.g., chemical storage, waste storage, processes): The field labs in T891B, T891O, T891R and T891V used acids and bases to preserve samples. See Building 891 WSRIC for detailed explanation of waste streams that are sampled and stored in the T891B field lab. Samples stored in these field labs were environmental samples with very low levels of radiological and chemical contamination. Most of the samples were well below RCRA regulatory levels. The 891 trailers and T893A &T893B trailers are not listed on "The Master List of RCRA Units".

Describe any potential, likely, or known spill locations (and sources, if any): None.

Describe methods in which spills were mitigated, if any: None.

Note: SME should evaluate and/or verify this information during the RLC/PDS process. SME may need to review additional documentation and perform additional interviews.

PCBs

Describe any potential, likely, or known sources of PCBs (e.g., light ballasts, paints, equipment, etc.): Some trailers may contain PCB-based paints and light ballasts with PCBs. No equipment containing PCBs were ever located in any of these trailers.

Describe any potential, likely, or known spill locations (and sources, if any): None.

Describe methods in which spills were mitigated, if any: None.

Note: SME should evaluate and/or verify this information during the RLC/PDS process. SME may need to review additional documentation and perform additional interviews.

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations:

The T891B sample storage refrigerator was a RMA. See Building 891 WSRIC for detailed explanation of waste streams that were sampled and shipped by the T891B field lab. Samples stored in the field lab were environmental samples with very low levels of contamination.

Room 12 and Room 10 of T891O are designated as a RMA for storing radioactive samples.

The west room of T891P is used for radiological monitoring (counting smears) by the water treatment support group and currently is posted as a RMA.

The north end of T891R is used to receive bioassay samples from RFETS employees. Room 7 is used as a radiological calibration and instrument storage room. The east end of the trailer has several refrigerators used to store samples at a controlled temperatures until they can be shipped off-site for analysis. The refrigerators are designated as RMAs.

Trailer T891V is currently used to coordinate field sampling activities and sometime store sampling equipment. T891V did act as a counting lab as part of it operational history and currently has 2 chemical hoods, which are not in use.

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.): None.

Describe methods in which spills were mitigated, if any: None.

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.): None.

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.): None.

Note: SME should evaluate and/or verify this information during the RLC/PDS process. SME may need to review additional documentation and perform additional interviews.

Environmental Restoration Concerns

Describe any ER concerns that could affect facility characterization (e.g., IHSSs, PACs, UBCs):

No known IHSSs, PACs, or UBCs are related to these trailer.

Note: SME should evaluate and/or verify this information during the RLC/PDS process. SME may need to review additional documentation and perform additional interviews.

Additional Information

Describe any additional information that may be useful during facility characterization (e.g., contaminant migration routes, waste handling operations, physical hazards, Historical Release Reports, WSRIC data, etc.): Trailer T891O has a WSRIC for sample filtering and lead-lined drum recycling activities, even though T891O only handled the paperwork related to the lead-lined drum recycling. The lead-lined drums were stored in a cargo container west of the trailer.

See Building 891 WSRIC for detailed explanation of waste streams that are sampled and stored in the T891B field lab.

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References

Provide all sources of information utilized to gather data for facility history (e.g., documents, files, interviews). Attach all applicable supporting documentation.

Sources reviewed to complete this HSA were the RFETS Facility list, the Historical Release Report, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases. This trailers do not have a Facility Safety Analysis or a WSRIC. In addition, facility walkdown were performed and the Building Coordinator was interviewed.

Waste Volume Estimates and Material Types

Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM	Other Waste (cu ft)
T891B	None	300	250	350	450	TBD	50
T891D	None	800	250	0	450	TBD	50
T891E	None	1400	500	0	800	TBD	200
T891F	None	800	250	0	450	TBD	75
T891G	None	800	250	0	450	TBD	75
T891O	None	1800	800	0	1800	TBD	200
T891P	None	275	250	350	450	TBD	50
T891R	None	600	800	1100	1400	TBD	200
T891V	None	275	250	350	450	TBD	50
T893A	None	3500	1500	3000	4500	TBD	400
T893B	None	3500	1500	3000	4500	TBD	400

Further Actions

Recommend any further actions, if any (e.g., characterization, decontamination, special handling, etc.):

Begin the RLC/PDS process.

Note:

This HSA was performed prior to SME walkdowns, and chemical and radiological characterization package preparations. Information contained in this HSA only represents a "snapshot" in time. Subsequent data may be obtained during SME walkdowns and chemical and radiological characterization package preparations, which may conflict with this report. However, this report will not be amended, and the newer data will take precedence over the data in the report. Newer Data will appear in the RLCR/PDSR

Prepared By: DOUG BRYANT [signature] 10-9-01

Name Signature Date

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D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

Facility ID: T891B, T891D, T891 E, T 891F, T891G, T891O, T891P T891 R, T891V, T893A and T893B.
Anticipated Facility Type (1, 2, or 3): All of the trailers in this cluster are anticipated type 1 facilities.

This facility specific Historical Site Assessment (HSA) - Interview Checklist has been conducted in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Personnel Interviewed (Name, Title, and Function)

Russ Cirillo, Building Coordinator – Building Coordinator for all the 891 Trailers. Although Mr. Cirillo was not the Building Coordinator for T893 A and T893 B, he was familiar with the operations of these trailers over the last 5 years.

What time frame did the interviewee work in the facility? What was his/her function(s)?

Mr. Cirillo has been Building Coordinator for the T891 trailers for 7 to 8 years.

Has the building configuration changed since you worked in the building (e.g., rooms & equipment)? Have there been any building renovations? If so, in what way?

The field lab for B891 was moved to the center work area of T891B from T891C trailer in 1999. This field lab is really not a lab, but an area used to ship and store samples from the B891 Water Treatment Facility.

Trailer T891V was moved to its current location in about 1999.

What operations/processes were conducted in the building during the interviewee's time in the facility?

T891B stores samples from the B891 Water Treatment Facility.

T891D, T891E, T891F, T891G, T893A and T893B have always been used as general field trailers.

T981O -Ground water monitoring activities included sample packaging and shipping, sample storage, and sample filtration. This trailer was also used to coordinate lead-lined drums recycling. The lead-lined drums were stored in seven cargo container east of the T891C and never entered T891O.

Trailer T891P houses the Water Treatment Support Group.

Trailer T891R housed the bioassay receiving and shipping facility, as well as the Surface Water Support Group. The Surface Water Support Group collected field samples and shipped these samples to off-site laboratories for analysis. T891R housed a Radiological Support Group, which supported the Surface Water Support Group, used hand-held and table radiological measurement instruments. This group stored sealed calibration sources. Radiological support operations were primarily in the northwestern offices.

T891V - East and west offices were used as general offices, and the center work area has two chimical hoods. These hoods are used to manage samples.

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D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

Were there any Asbestos Containing Materials (e.g., transite wall board, ceiling tiles, floor tile), lead shielding, equipment utilizing PCB oils (e.g., process equipment, lifts, hydraulic systems, etc.), or any other chemical hazards (past or present)? Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.
Did any spills or uncontrolled release of radioactive materials or chemicals occur while you worked in the building? If so, what types, quantities, and where? Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.
Were these spills/releases cleaned up or mitigated? If so, how, and to what extent? Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.
Do you know of any additional issues, concerns, or process knowledge that could affect facility characterization? Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.

Prepared By: Doug Bryant / Doug Bryant / 7-16-01

Print Name / Signature / Date

D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

Facility ID: T891B, T891D, T891 E, T 891F, T891G, T891O, T891P T891 R, T891V, T893A and T893B.
Anticipated Facility Type (1, 2, or 3): All of the trailers in this cluster are anticipated type 1 facilities.

This facility specific Historical Site Assessment (HSA) - Interview Checklist has been conducted in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Personnel Interviewed (Name, Title, and Function)

Richard Link is the Radiological Engineer for RISS Closure Support project and PU&D Radiological Support

What time frame did the interviewee work in the facility? What was his/her function(s)?

Mr. Link has worked throughout the 800 Area as a RCT and Health Physicist for over 30 years

Has the building configuration changed since you worked in the building (e.g., rooms & equipment)? Have there been any building renovations? If so, in what way?

Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.

What operations/processes were conducted in the building during the interviewee's time in the facility?

Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.

What types of equipment were used, and where was the equipment located? (specific rooms/areas)

Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.

Were any radioactive materials or equipment handled in the building (e.g., wastes, residues, product, feed material, sealed radioactive sources)? If so, what types and where?

Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.

Were there any Research & Development area (past or present) located in the facility or area? If so, where?

Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.

Were any chemicals (e.g., Beryllium, RCRA/CERCLA Constituents, PCBs, etc.) handled in the building? If so, what types and where?

Richard Link stated that he had no comments or concerns with these trailers, and no interview was performed.

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D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

What type of equipment were used, and where was the equipment located? (specific rooms/areas)

General office equipment throughout all the T891 trailers and the T893A and T893 B trailers.

T891B and T891R had sample refrigerators.

T891O-General office equipment, sampling equipment, and sample storage and shipping equipment.
The west office of Trailer T891P is used to count smears collected during operation and maintenance activities of the B891 Water Treatment Facility.

T891R - General office equipment, sample storage and shipping equipment, hand-held and table radiological measurement equipment, sealed sources, and refrigerators. This equipment was throughout the trailer.

T891V- General office equipment and two hoods. Stored some misc. sampling equipment as well as acids and basis for preserving samples.

Were any radioactive materials or equipment handled in the building (e.g., wastes, residues, product, feed material, sealed radioactive sources)? If so, what types and where?

Samples from the B891 Water Treatment Facility are stored in the central work area of T891B.

T891O stored samples in Room 12 and Room 10. These rooms were labeled RMA. T891O housed some radiological operation personnel who supported ground water monitoring, and they used hand-held survey equipment with sealed sources.

T891P had a RMA established in the west office for counting smears taken during the sampling and maintenance activities related to B891.

T891R stored bioassay and environmental samples, hand-held instruments, smear counters, and sealed calibration sources. None of the sources where known to have leaked.

Were there any Research & Development area (past or present) located in the facility or area? If so, where?

The T891 trailer supported field investigation activities, but these activities would not meet the definition of "Research and Development".

Were any chemicals (e.g., Beryllium, RCRA/CERCLA Constituents, PCBs, etc.) handled in the building? If so, what types and where?

Small quantities of acids and bases for sample preservation. The samples handled in T891B, T891O, T891R and T891V were environmental samples and generally contained contamination levels below RCRA and CERCLA regulatory limits.

Were there any Asbestos Containing Materials (e.g., transite wall board, ceiling tiles, floor tile), lead shielding, equipment utilizing PCB oils (e.g., process equipment, lifts, hydraulic systems, etc.), or any other chemical hazards (past or present)?

None.

D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

Did any spills or uncontrolled release of radioactive materials or chemicals occur while you worked in the building? If so, what types, quantities, and where? None
Were these spills/releases cleaned up or mitigated? If so, how, and to what extent? None
Do you know of any additional issues, concerns, or process knowledge that could affect facility characterization? None

Prepared By: Doug Bryant (Print Name) Doug Bryant (Signature) 7-16-01 (Date)

D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

Facility ID: T891O and T891V
Anticipated Facility Type (1, 2, or 3): Both of these trailers are anticipated type 1 facilities.

This facility specific Historical Site Assessment (HSA) - Interview Checklist has been conducted in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Personnel Interviewed (Name, Title, and Function)

Craig Huyett is the CASI Sampling Team Lead. Mr. Huyett was recently working in T891V and also worked in this trailer when it was called T890J

John Boylan is the Field Manager of Groundwater Monitoring Program that worked in T891O until it was vacated in July of 2001.

What time frame did the interviewee work in the facility? What was his/her function(s)?

Mr. Huyett has worked on site for 20 years.

Mr. Boylan has worked in the Groundwater Monitoring Program for 7 years.

Has the building configuration changed since you worked in the building (e.g., rooms & equipment)? Have there been any building renovations? If so, in what way?

This question was not addressed.

What operations/processes were conducted in the building during the interviewee's time in the facility?

During Mr. Boylan's tenure as Field Manager filtration of groundwater samples was conducted in the field. At the end of each day the sampling team put the filters in the RMA that was established in room 12.

What type of equipment were used, and where was the equipment located? (specific rooms/areas)

This question was not addressed.

Were any radioactive materials or equipment handled in the building (e.g., wastes, residues, product, feed material, sealed radioactive sources)? If so, what types and where?

This question was not addressed.

Were there any Research & Development area (past or present) located in the facility or area? If so, where?

This question was not addressed.

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D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

Were any chemicals (e.g., Beryllium, RCRA/CERCLA Constituents, PCBs, etc.) handled in the building? If so, what types and where? This question was not addressed.
Were there any Asbestos Containing Materials (e.g., transite wall board, ceiling tiles, floor tile), lead shielding, equipment utilizing PCB oils (e.g., process equipment, lifts, hydraulic systems, etc.), or any other chemical hazards (past or present)? This question was not addressed.
Did any spills or uncontrolled release of radioactive materials or chemicals occur while you worked in the building? If so, what types, quantities, and where? Mr. Huyett stated that he knows of no spills in the hood or in T891V (a.k.a. T690J) during his time in this facility. Mr. Boylan stated the vinyl floor in room 9 was discolored, but he was not aware of any chemical spills in room 9 or any other room in the trailer during his 7 years working in T891O. In addition, Mr. Boylan confirmed that the stain in room 13 is from a 5-gallon bucket of Liquinox™ (detergent) that leaked.
Were these spills/releases cleaned up or mitigated? If so, how, and to what extent? This question was not addressed.
Do you know of any additional issues, concerns, or process knowledge that could affect facility characterization? This question was not addressed.

Prepared By: JIM MOORE (Print Name) , [signature] (Signature) , 8/1/01 (Date)

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D&D RISS Facility Characterization
Historical Site Assessment Report
June, 2002 Rev. 0

Facility ID: Buildings Trailers T891C, and T891Q.
Anticipated Facility Type (1, 2, or 3): Trailers T891C and T891Q are anticipated Type 1 facilities.

This facility-specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Physical Description

Trailers T891C

T891C is a 3900 square foot general office trailer acquired in 1994 and is currently located in the 800-area contractor support yard. The building a corrugated metal siding and corrugated metal skirting. The entries have wooden stairs leading to the entry doors. T891C configuration consists mostly of hard walled offices and two large conference rooms. The ceiling is a drop ceiling made of acoustical tiles with recessed lighting. The floors are vinyl tile.

Trailer T891C has the following utilities: electric, plant water, plant sanitary, and fire protection is provided by wall mounted fire extinguishers.

Trailers T891Q

Trailer T891Q is a 765 square foot single-wide shower office trailer. This trailer was placed into service in 1993 and is located south east of the 904 Pad. T891Q has aluminum siding and with painted wood skirting. Each entry has wood steps leading to the entry doors. The interior is configured with a separate men and woman's shower, toilet and locker room facility. The interior walls are wallboard and the floors are vinyl tiles.

Trailer T891Q has the following utilities: electric, natural gas, plant water, plant sanitary, and fire is protection provided by wall mounted fire extinguishers.

Historical Operations

Trailer T891C

T891C has historically been used as a general office trailer and has housed RISS, ER, and D&D support personnel. However, Room 13 was used as the Resource Technology Lab (RTG) field lab to support the 891 waste treatment facility. Nitric Acid, hydrochloric acid, sulfuric acid and sodium hydroxide pellets are used and stored in the RTG lab. This lab was moved to T891B in 1999. The trailer had no known radiological or hazardous operations other than the field laboratory operations identified above.

Trailer T891Q

T891Q is used as a shower trailer for workers at Building 906and the 904 Pad. The trailer had no other radiological or hazardous operations. Routine radiological surveys show no evidence of contamination.

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Current Operational Status

Trailers T891C is currently empty and T891Q is currently operational.

Contaminants of Concern

Asbestos

Describe any potential, likely, or known sources of Asbestos:

Both T891C and T891Q are posted as potentially containing asbestos. No comprehensive asbestos survey has been performed on these trailers.

Beryllium (Be)

Describe any potential, likely, or known Be production or storage locations:

None of the building addressed in this HSA are on the List of known Be Areas.

Summarize any recent Be sampling results:

There have been no recent Be samples collected on any of these facilities.

Lead

Describe any potential, likely, or known sources of Lead (e.g., paint, shielding, etc.):

Lead in paint should not be a concern for the facilities in this HSA, given the recent age of construction. No processes containing lead were conducted in these trailers.

RCRA/CERCLA Constituents

Describe any potential, likely, or known sources of RCRA/CERCLA constituents (e.g., chemical storage, waste storage, and processes):

Samples from the 891 water treatment facility where stored in a Room 13 when room 13 was used a small field laboratory. Samples stored in the field lab were environmental samples from the B891 waster treatment facility and had only low levels of contamination. The use of the term "field Laboratory" is misleading because the field lab was primarily used to preserved sample, package and ship samples, and the take field measurements such as pH, conductivity (See historical Operations section above). There is no evidence of building contamination resulting from this activity.

T891Q is the shower trailer for personnel working in Building 906 and the 904 Pad waste storage areas. There is no evidence of chemical contamination associated with this activity.

Describe any potential, likely, or known spill locations (and sources, if any):

None

Describe methods in which spills were mitigated, if any:

None

PCBs

Describe any potential, likely, or known sources of PCBs (e.g., light ballasts, paints, equipment, etc.):

PCBs where not known to have been handled in any of the facilities addressed in this HSA. Due to the recent age of construction, PCBs in paint are not expected.

Describe any potential, likely, or known spill locations (and sources, if any):

No PCB spills occurred in any of the facilities addressed in this HSA.

Describe methods in which spills were mitigated, if any:

No PCB spills occurred in any of the facilities addressed in this HSA.

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations:

Neither Trailer T891C nor T891Q are radiologically posted. Samples from the 891 water treatment facility where stored in a Room 13 when room 13 was used a small field laboratory. Samples stored in the field lab were environmental samples from the B891 waster treatment facility and had only low levels of contamination. The use of the word "field Laboratory" is misleading because the field lab was primarily used to preserved sample, package and ship samples, and the take field measurements such as pH, conductivity (See historical Operations section above). There is no evidence of building contamination resulting from this activity. On occasion, RCTs were housed in T891C. These RCTs occasionally had sealed sources in the trailer. There is not history of these sealed sources leaking.

T891Q is the shower trailer for personnel working in Building 906 and the 904 Pad waste storage areas. There is no evidence of radiological contamination associated with this activity.

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.):

None

Describe methods in which spills were mitigated, f any:

None

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.):

Other than sealed sources, there were no radiological material stored or handled in any of the facilities addressed in this HSA.

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.):

See section below for information on IHSSs PACs, and UBCs.

Environmental Restoration Concerns

Describe any ER concerns that could affect facility characterization (e.g., IHSSs, PACs, UBCs):

Trailers T891C and t891Q are not associated with any IHSSs, PACs, and UBCs;

Additional Information

Describe any additional information that may be useful during facility characterization (e.g., contaminant migration routes, waste handling operations, physical hazards, Historical Release Reports, WSRIC data, etc.):

None

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D&D RISS Facility Characterization
Historical Site Assessment Report
June, 2002 Rev. 0

References

Provide all sources of information utilized to gather data for facility history (e.g., documents, files, interviews):

Sources reviewed to complete this HSA were the RFETS Facility List, the Historical Release Report, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases. None of the buildings in this HSA have WSRICs. In addition, a facility walkdown and interviews were performed.

Waste Volume Estimates and Material Types

Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM (cu ft)	Other Waste (cu ft)
Trailer T891C	None	800	1000	1200	1400	TBD	N/A
Trailer T891Q	None	300	300	350	450	TBD	N/A

Further Actions

Recommend any further actions, if any (e.g., characterization, decontamination, special handling, etc.):

Begin the RLC/PDS process.

Note:

This HSA was performed prior to SME walkdowns, and chemical and radiological characterization package preparations. SMEs should evaluate and/or verify all information during the RLC/PDS process. SMEs may need to review additional documentation and perform additional interviews. Information contained in this HSA only represents a "snapshot" in time. Subsequent data may be obtained during SME walkdowns and chemical and radiological characterization package preparations, which may conflict with this report. However, this report will not be amended, and the newer data will take precedence over the data in this report. Newer Data will appear in the RLCR/PDSR.

Prepared By: Doug Bryant / [signature] / June 2002

Name Signature Date

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D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

Facility ID: Trailers T891C and T891Q.
Anticipated Facility Type (1, 2, or 3): Trailers T891C and T891Q are anticipated type 1 facilities.

This facility specific Historical Site Assessment (HSA) - Interview Checklist has been conducted in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Personnel Interviewed (Name, Title, and Function)

Russ Cirillo, Building Coordinator – Building Coordinator for all the 891 Trailers.

What time frame did the interviewee work in the facility? What was his/her function(s)?

Mr. Cirillo has been Building Coordinator for the T891 trailers for 7 to 8 years.

Has the building configuration changed since you worked in the building (e.g., rooms & equipment)? Have there been any building renovations? If so, in what way?

The field laboratory for 891 Water Treatment Facility was moved from T891C, Room 13 to the T891B in 1999. This field lab is really not a lab, but an area used to package and ship samples from the B891 Water Treatment Facility.

No configuration changes to the T891Q shower trailer.

What operations/processes were conducted in the building during the interviewee's time in the facility?

T891G was a general office trailer. T891Q was a shower trailer for personnel working on the 904 Pad and Building 906.

What type of equipment were used, and where was the equipment located? (specific rooms/areas).

T891C has general office equipment. T891Q had general shower equipment, locks and a water heater.

Were any radioactive materials or equipment handled in the building (e.g., wastes, residues, product, feed material, sealed radioactive sources)? If so, what types and where?

T891C packaged and shipped samples from the 891 water treatment facility. These samples where environmental samples with very low levels of contamination. These levels were well below RCRA criteria. These samples were temperately stored in a refrigerator labeled as a RMA in Room 13. On occasion, RCTs housed in Trailer T891C had seal sources in the trailer. There is no history of these sealed sources leaking.

Trailer T891 Q was a shower trailer for personnel working in 906 and 904 pad waste storage areas. There is no indication of radiological contamination resulting from this activity.

Were there any Research & Development area (past or present) located in the facility or area? If so, where?

None

D&D RISS Facility Characterization
Historical Site Assessment - Interview Checklist

Were any chemicals (e.g., Beryllium, RCRA/CERCLA Constituents, PCBs, etc.) handled in the building? If so, what types and where? Trailer T891C had Small quantities of acids and bases for sample preservation. The samples stored in T891C Room 13 were environmental samples and contained contamination level below RCRA regulatory limits. Trailer T891Q was a shower trailer for the Building 906 and 904 Pad waste storage areas. There is no indication of chemical contamination in the showers.
Were there any Asbestos Containing Materials (e.g., transite wall board, ceiling tiles, floor tile), lead shielding, equipment utilizing PCB oils (e.g., process equipment, lifts, hydraulic systems, etc.), or any other chemical hazards (past or present)? None.
Did any spills or uncontrolled release of radioactive materials or chemicals occur while you worked in the building? If so, what types, quantities, and where? None
Were these spills/releases cleaned up or mitigated? If so, how, and to what extent? None
Do you know of any additional issues, concerns, or process knowledge that could affect facility characterization? None

Prepared By: Doug Bryant / Doug Bryant / 6-5-02

Print Name Signature Date

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ATTACHMENT C

Radiological Data Summaries and Survey Maps

SURVEY UNIT G15-A-007
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T891P (Interior & Exterior)

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SURVEY UNIT
G15-A-007
PDS Data Summary

Total Surface Activity Measurements

	25	25
	Number Required	Number Obtained

MIN	-19.3	dpm/100 cm^2
MAX	81.6	dpm/100 cm^2
MEAN	14.5	dpm/100 cm^2
STD DEV	27.1	dpm/100 cm^2
TRANSURANIC DCGL$_W$	100	dpm/100 cm^2

Removable Activity Measurements

	25	25
	Number Required	Number Obtained

MIN	-0.9	dpm/100 cm^2
MAX	5.5	dpm/100 cm^2
MEAN	0.5	dpm/100 cm^2
STD DEV	2.0	dpm/100 cm^2
TRANSURANIC DCGL$_W$	20	dpm/100 cm^2

SURVEY UNIT G15-A-007
TSA - DATA SUMMARY

Manufacturer:	NE Electra	NE Electra	NE Electra	NE Electra	NE Electra
Model:	DP-6	DP-6	DP-6	DP-6	DP-6
Instrument ID#:	7	8	9	10	11
Serial #:	1379	1250	1420	1260	1260
Cal Due Date:	11/20/02	10/10/02	9/27/02	8/27/02	8/27/02
Analysis Date:	7/15/02	7/15/02	7/15/02	7/15/02	7/17/02
Alpha Eff. (c/d):	0.173	0.213	0.223	0.221	0.221
Alpha Bkgd (cpm)	4.0	2.0	4.7	4.0	3.0
Sample Time (min)	1.5	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#:	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)[2]	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	7	6.7	38.7	6.7	38.7	16.3
2	9	7.3	32.7	4.1	18.4	10.3
3	7	8.0	46.2	5.3	30.6	23.8
4	8	6.0	28.2	7.3	34.3	5.8
5	11	20.7	93.7	6.7	30.3	71.3
6	10	12.0	54.3	6.0	27.1	31.9
7	7	4.0	23.1	6.0	34.7	0.7
8	7	18.0	104.0	2.7	15.6	81.6
9	7	8.0	46.2	6.0	34.7	23.8
10	9	8.7	39.0	5.3	23.8	16.6
11	8	7.3	34.3	2.7	12.7	11.9
12	9	11.3	50.7	4.3	19.3	28.3
13	8	1.3	6.1	2.0	9.4	-16.3
14	7	6.1	35.3	6.0	34.7	12.9
15	11	13.3	60.2	8.0	36.2	37.8
16	8	2.7	12.7	4.0	18.8	-9.7
17	10	2.0	9.0	4.0	18.1	-13.4
18	10	1.3	5.9	3.3	14.9	-16.5
19	10	4.7	21.3	4.0	18.1	-1.1
20	8	3.3	15.5	1.3	6.1	-6.9
21	9	0.7	3.1	1.3	5.8	-19.3
22	9	2.7	12.1	6.7	30.0	-10.3
23	11	18.7	84.6	5.3	24.0	62.2
24	10	4.7	21.3	0.0	0.0	-1.1
25	9	10.0	44.8	5.3	23.8	22.4

22.4	Sample LAB Average
MIN	-19.3
MAX	81.6
MEAN	14.5
SD	27.1
Transuranic $DCGL_W$	100

1 - Average LAB used to subtract from Gross Sample Activity

2 - Gross cpm values for locations 5,15, and 23 are from the resurvey performed on 7/17/02

Original TSA values:

5	93 dpm/100cm^2
15	101 dpm/100cm^2
23	109 dpm/100cm^2

QC Measurements

20 QC	7	0.7	4.0	0.7	4.0	-5.8
19QC	7	2.7	15.6	2.7	15.6	5.8

9.8	QC LAB Average
Transuranic $DCGL_W$	100

1 - Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT G15-A-007
RSC - DATA SUMMARY

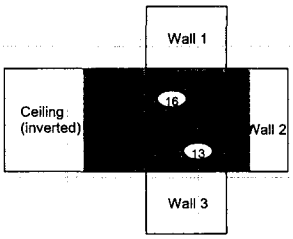
Manufacturer:	Eberline	Eberline	Eberline	Eberline
Model:	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#:	1	2	3	4
Serial #:	770	851	963	**966**
Cal Due Date:	7/25/02	10/29/02	1/3/02	**11/6/02**
Analysis Date:	7/15/02	7/15/02	7/15/02	**7/15/02**
Alpha Eff. (c/d):	0.33	0.33	0.33	**0.33**
Alpha Bkgd (cpm)	0.2	0.2	0.2	**0.3**
Sample Time (min)	2	2	2	**2**
Bkgd Time (min)	10	10	10	**10**
MDC (dpm/100cm^2)	7.1	7.1	7.1	**7.8**

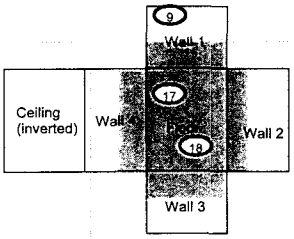
Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	3	0	-0.6
2	3	0	-0.6
3	1	0	-0.6
4	1	1	2.4
5	2	2	5.5
6	4	0	-0.9
7	1	0	-0.6
8	2	1	2.4
9	1	0	-0.6
10	3	2	5.5
11	4	1	2.1
12	1	1	2.4
13	2	0	-0.6
14	3	0	-0.6
15	4	0	-0.9
16	1	0	-0.6
17	2	0	-0.6
18	3	0	-0.6
19	4	0	-0.9
20	2	0	-0.6
21	2	1	2.4
22	3	0	-0.6
23	4	1	2.1
24	1	0	-0.6
25	2	0	-0.6
		MIN	-0.9
		MAX	5.5
		MEAN	0.5
		SD	2.0
		Transuranic DCGL$_W$	**20**

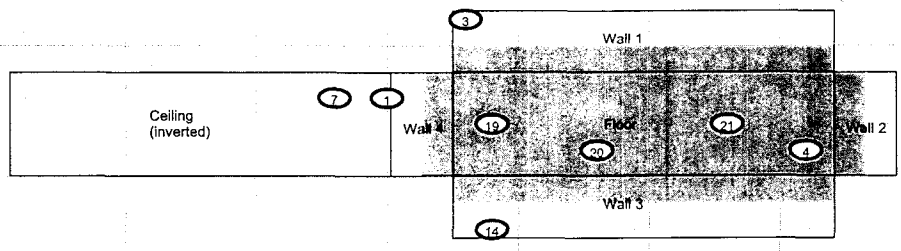
PRE-DEMOLITION SURVEY

Survey Area: A **Survey Unit: G15-A-007** **Classification: 3**
***Building:* T891P**
Survey Unit Description: Interior/Exterior
Total Area: 628 sq. m. **Total Roof & Floor Area: 174 sq. m.**

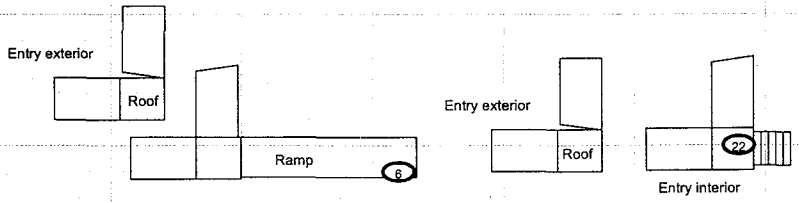
T891P
(interior)

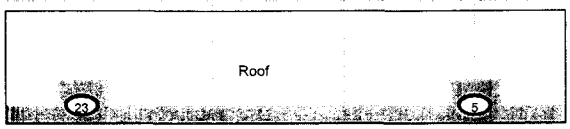


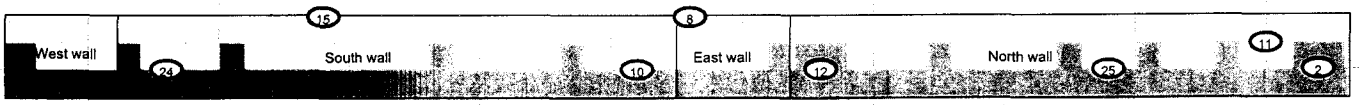




T891P
(exterior)







Scan Area

SURVEY MAP LEGEND

- (#) Smear & TSA Location
- (#) Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30
0 METERS 10
1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s): 7, 8, 9, 10
RCT ID #(s): 1, 3, 4, 5, 6

U.S. Department of Energy
Rocky Flats Environmental Technology Site
Prepared by: GIS Dept. 303-966-7707 Prepared for:
DynCorp
THE ART OF TECHNOLOGY
KAISER HILL
MAP ID: 02-0148/T891P-SC July 18, 2002

G15-A-007

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SURVEY UNIT GT891Q-A-001
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T891Q (Interior & Exterior)

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Total Surface Activity Measurements

	25 Number Required	25 Number Obtained	
MIN	-4.7		dpm/100 cm^2
MAX	76.7		dpm/100 cm^2
MEAN	17.6		dpm/100 cm^2
STD DEV	18.2		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	25 Number Required	25 Number Obtained	
MIN	-0.9		dpm/100 cm^2
MAX	8.5		dpm/100 cm^2
MEAN	0.8		dpm/100 cm^2
STD DEV	2.5		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

SURVEY UNIT GT891Q-A-001
TSA - DATA SUMMARY

Manufacturer:	NE Electra	NE Electra	NE Electra	NE Electra
Model:	DP-6	DP-6	DP-6	DP-6
Instrument ID#:	7	8	9	10
Serial #:	1250	1420	1260	1379
Cal Due Date:	10/10/02	9/27/02	8/27/02	11/20/02
Analysis Date:	7/15/02	7/15/02	7/15/02	7/15/02
Alpha Eff. (c/d):	0.213	0.223	0.221	0.173
Alpha Bkgd (cpm)	2.0	4.7	4.0	4.0
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#:	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	9	12.7	57.5	0.0	0.0	46.9
2	9	19.3	87.3	0.0	0.0	76.7
3	9	9.3	42.1	0.0	0.0	31.5
4	7	4.7	22.1	10.0	46.9	11.5
5	9	11.3	51.1	0.0	0.0	40.5
6	8	6.7	30.0	6.0	26.9	19.4
7	9	6.7	30.3	0.0	0.0	19.7
8	7	4.0	18.8	2.3	10.8	8.2
9	9	2.7	12.2	4.7	21.3	1.6
10	9	1.3	5.9	1.3	5.9	-4.7
11	9	4.7	21.3	1.7	7.7	10.7
12	9	4.7	21.3	0.0	0.0	10.7
13	8	4.0	17.9	1.3	5.8	7.3
14	9	2.0	9.0	0.0	0.0	-1.6
15	9	9.3	42.1	0.0	0.0	31.5
16	9	2.7	12.2	2.7	12.2	1.6
17	8	4.7	21.1	3.3	14.8	10.5
18	7	6.0	28.2	1.3	6.1	17.6
19	9	2.7	12.2	2.0	9.0	1.6
20	8	2.7	12.1	3.3	14.8	1.5
21	8	10.3	46.2	6.7	30.0	35.6
22	7	6.0	28.2	4.0	18.8	17.6
23	9	4.7	21.3	2.0	9.0	10.7
24	8	5.3	23.8	4.3	19.3	13.2
25	9	6.7	30.3	1.3	5.9	19.7
					10.6	Sample LAB Average
					MIN	-4.7
					MAX	76.7
					MEAN	17.6
					SD	18.2
					Transuranic DCGL$_W$	100

1 - Average LAB used to subtract from Gross Sample Activity

QC Measurements

17 QC	7	4.7	22.1	2.0	9.4	12.7
21QC	7	7.3	34.3	2.0	9.4	24.9
					9.4	QC LAB Average
					Transuranic DCGL$_W$	100

1 - Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT GT891Q-A-001
RSC - DATA SUMMARY

Manufacturer:	Eberline	Eberline	Eberline	Eberline
Model:	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#:	1	2	3	4
Serial #:	770	851	963	**966**
Cal Due Date:	7/25/02	10/29/02	1/3/02	**11/6/02**
Analysis Date:	7/15/02	7/15/02	7/15/02	**7/15/02**
Alpha Eff. (c/d):	0.33	0.33	0.33	**0.33**
Alpha Bkgd (cpm)	0.2	0.2	0.2	**0.3**
Sample Time (min)	2	2	2	**2**
Bkgd Time (min)	10	10	10	**10**
MDC (dpm/100cm^2)	7.1	7.1	7.1	**8.8**

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	1	2.0	5.5
2	2	3.0	8.5
3	3	0.0	-0.6
4	4	1.0	2.1
5	1	1.0	2.4
6	2	2.0	5.5
7	3	1.0	2.4
8	4	0.0	-0.9
9	1	0.0	-0.6
10	2	0.0	-0.6
11	3	0.0	-0.6
12	4	0.0	-0.9
13	1	0.0	-0.6
14	2	0.0	-0.6
15	3	0.0	-0.6
16	4	0.0	-0.9
17	1	1.0	2.4
18	2	0.0	-0.6
19	3	0.0	-0.6
20	4	0.0	-0.9
21	1	0.0	-0.6
22	2	1.0	2.4
23	3	0.0	-0.6
24	4	0.0	-0.9
25	1	0.0	-0.6
		MIN	-0.9
		MAX	8.5
		MEAN	0.8
		SD	2.5
		Transuranic DCGL$_w$	**20**

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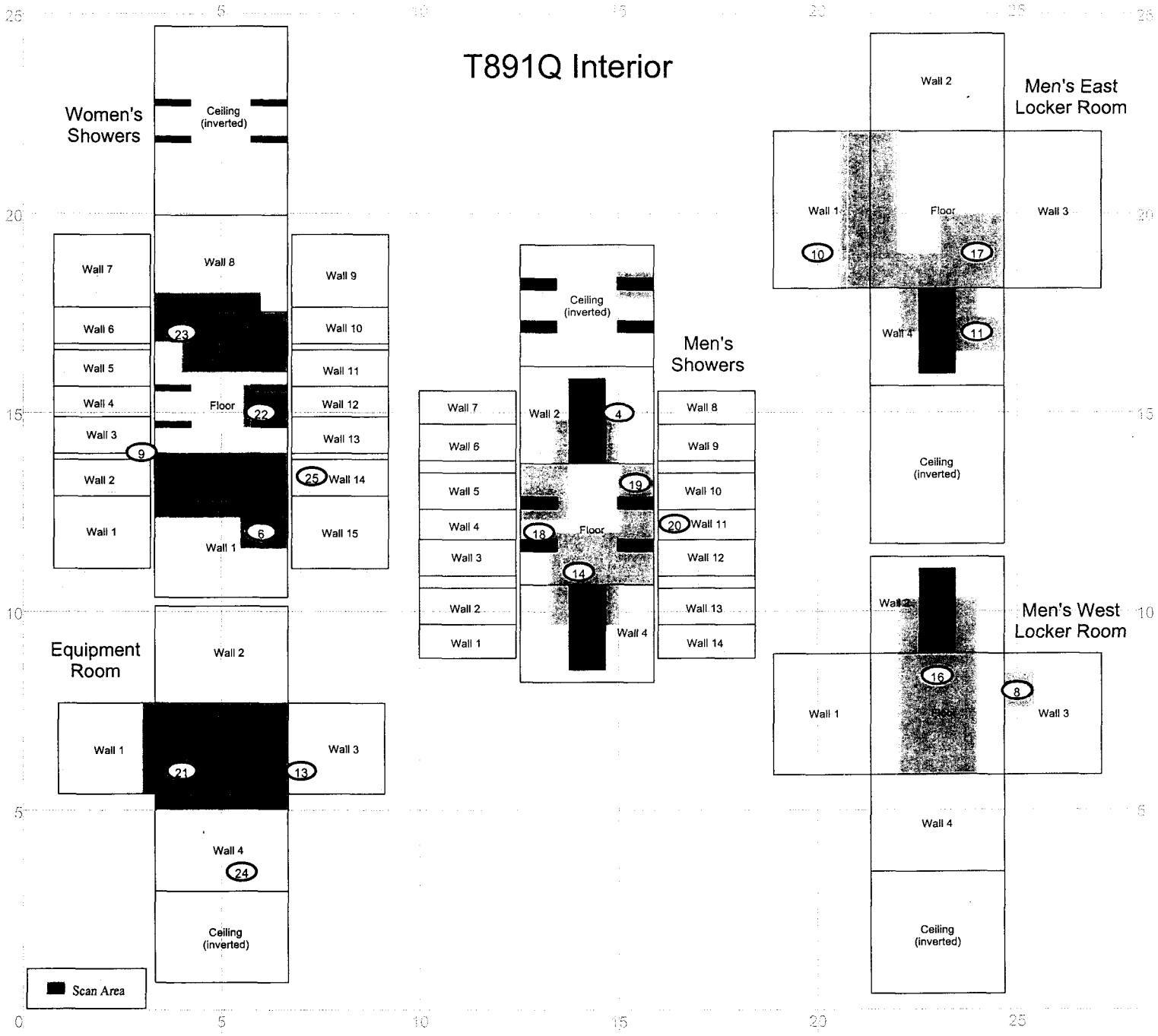
PRE-DEMOLITION SURVEY FOR T891 CLUSTER

Survey Area: A **Survey Unit: GT891Q-A-001** **Classification: 3**
Building: T891Q
Survey Unit Description: Interior & Exterior of Building
Total Area: 518 sq. m. **Total Floor Area: 67 sq. m.**
Total Roof Area: 56 sq. m.



SURVEY MAP LEGEND

- (#) Smear & TSA Location
- ◇ Smear, TSA & Sample Location
- ■ Open/Inaccessible Area
- □ Area in Another Survey Unit

N

0 FEET 15
0 METERS 5

1 inch = 12 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s): 8, 10
RCT ID #(s): 3, 4

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

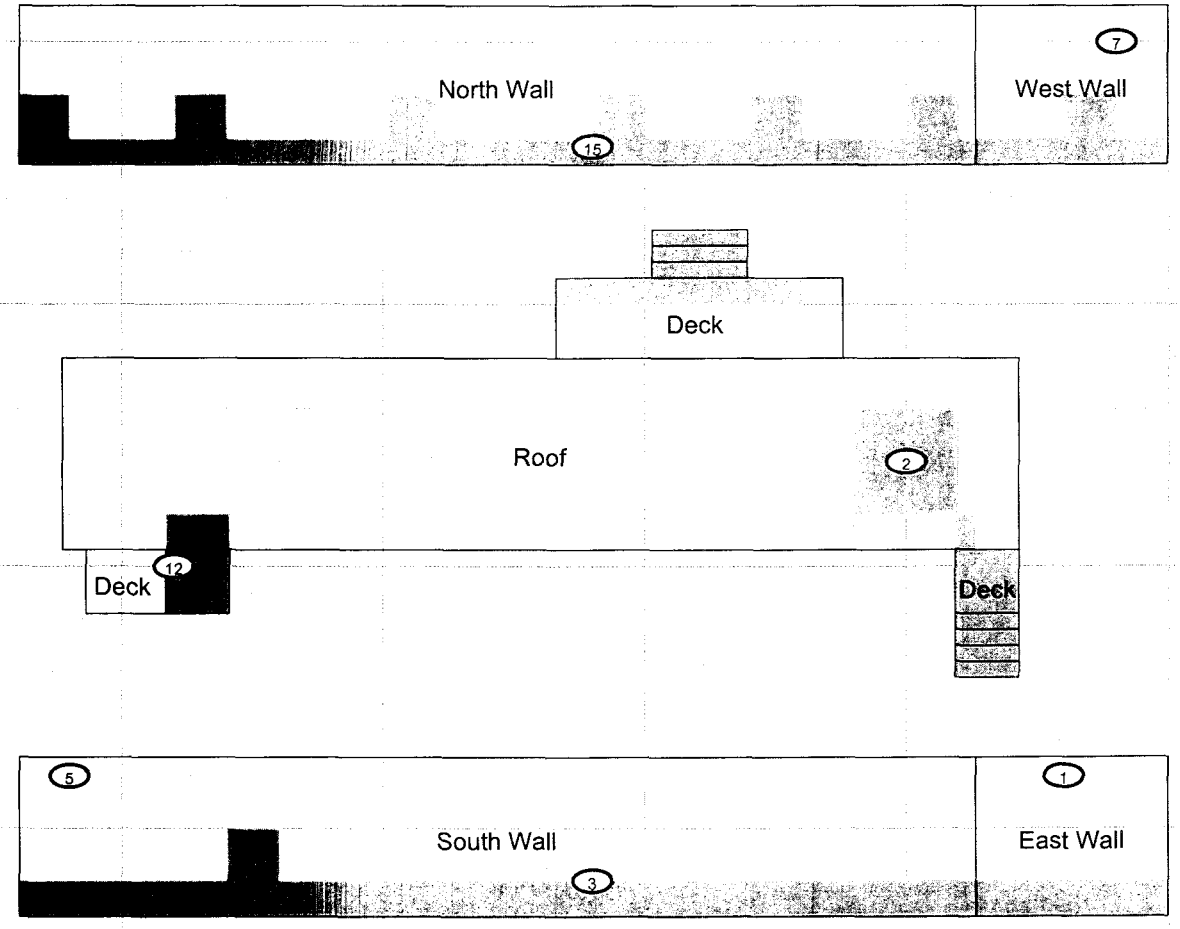
Prepared for: KAISER HILL

MAP ID: 02-0689/T891Q-IN-SC June 10, 2002

PRE-DEMOLITION SURVEY FOR T891 CLUSTER

Survey Area: A **Survey Unit: GT891Q-A-001** **Classification: 3**
Building: T891Q
Survey Unit Description: Interior & Exterior of Building
Total Area: 518 sq. m. **Total Floor Area: 67 sq. m.**
Total Roof Area: 56 sq. m.

T891Q Exterior



Scan Area

SURVEY MAP LEGEND
- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 15
0 METERS 5

1 inch = 12 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s): 0, 0
RCT ID #(s): 0, 0

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for: KAISER HILL

MAP ID: 02-0689/T891Q-EX-SC June 10, 2002

ATTACHMENT D

Chemical Data Summaries and Sample Maps

Asbestos Data Summary

Sample Number	Map Survey Point Location	Material Sampled & Location	Analytical Results
Building T891Q			
T891Q-722002-315-201	201	Men's East Locker Room – Beige and white linoleum at floor entrance to equipment room	None Detected
T891Q-722002-315-202	202	Women's Locker Room – Beige and white linoleum near floor drain	None Detected
T891Q-722002-315-203	203	Women's Locker Room – Dark brown base cove with yellow adhesive	None Detected
T891Q-722002-315-204	204	Men's West Locker Room – 2' x 4' white textured ceiling panel	None Detected
T891Q-722002-315-205	205	Men's West Locker Room – Tan and white fabric drywall panel, east wall	None Detected

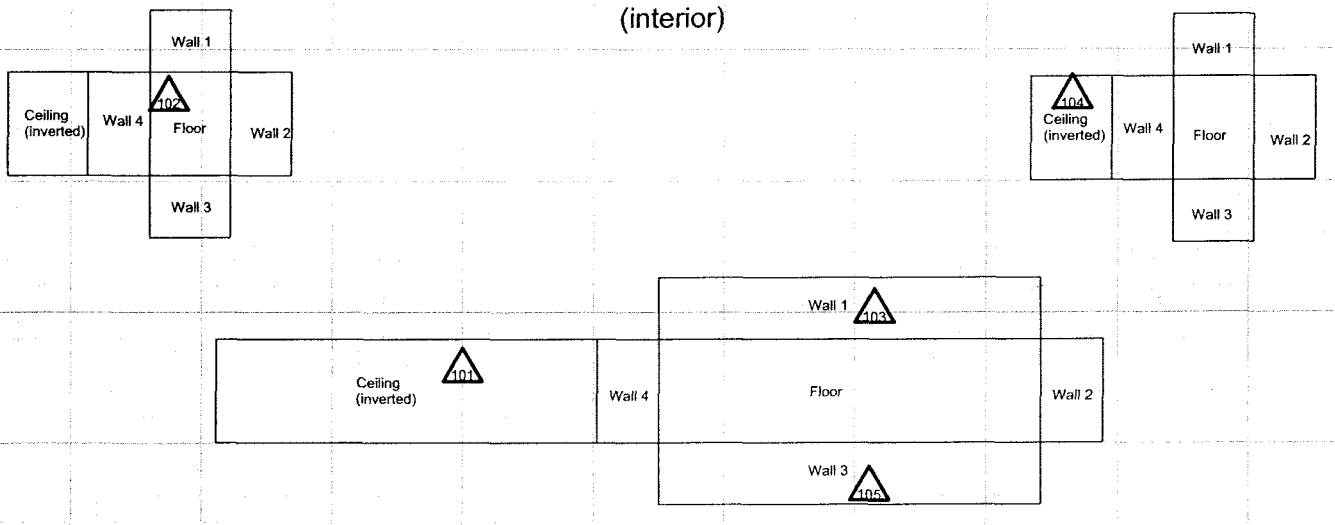
Beryllium Data Summary

Sample Number	Map Survey Point Location	Sample Location	Result ($\mu g/100\ cm^2$)
Building T891P			
T891P-712002-315-101	101	Main Room – Top of fluorescent light fixture	< 0.1
T891P-712002-315-102	102	East Room – On 12" vinyl floor tile, SE corner	< 0.1
T891P-712002-315-103	103	Main Room – Window sill, south wall	< 0.1
T891P-712002-315-104	104	West Room – Top of fluorescent light fixture	< 0.1
T891P-712002-315-105	105	Main Room – Top of "Breathing Apparatus" cabinet, north wall	< 0.1
Building T891Q			
T891Q-722002-315-106	106	Equipment Room – Top of water heater, east wall	< 0.1
T891Q-722002-315-107	107	Women's Locker Room – Edge of ceiling diffuser	< 0.1
T891Q-722002-315-108	108	Women's Locker Room – Top of speaker, west wall	< 0.1
T891Q-722002-315-109	109	Men's East Locker Room – Edge of ceiling diffuser	< 0.1
T891Q-722002-315-110	110	Men's West Locker Room – Louvers of HVAC vent, west wall	< 0.1

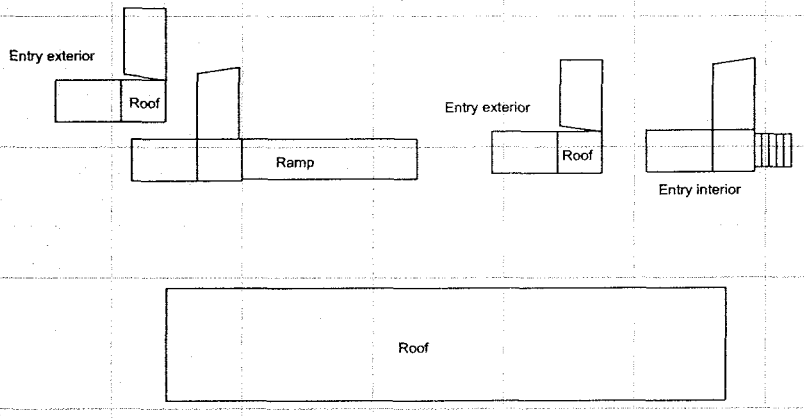
CHEMICAL SAMPLE MAP

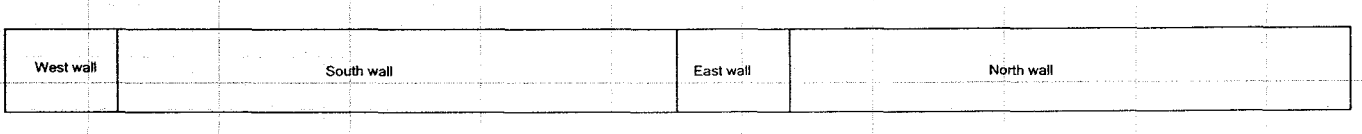
Building: T891P

T891P
(interior)



T891P
(exterior)





SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

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KAISER HILL

MAP ID: fy02-0148/T891P-BE July 9, 2002

G15-A-007

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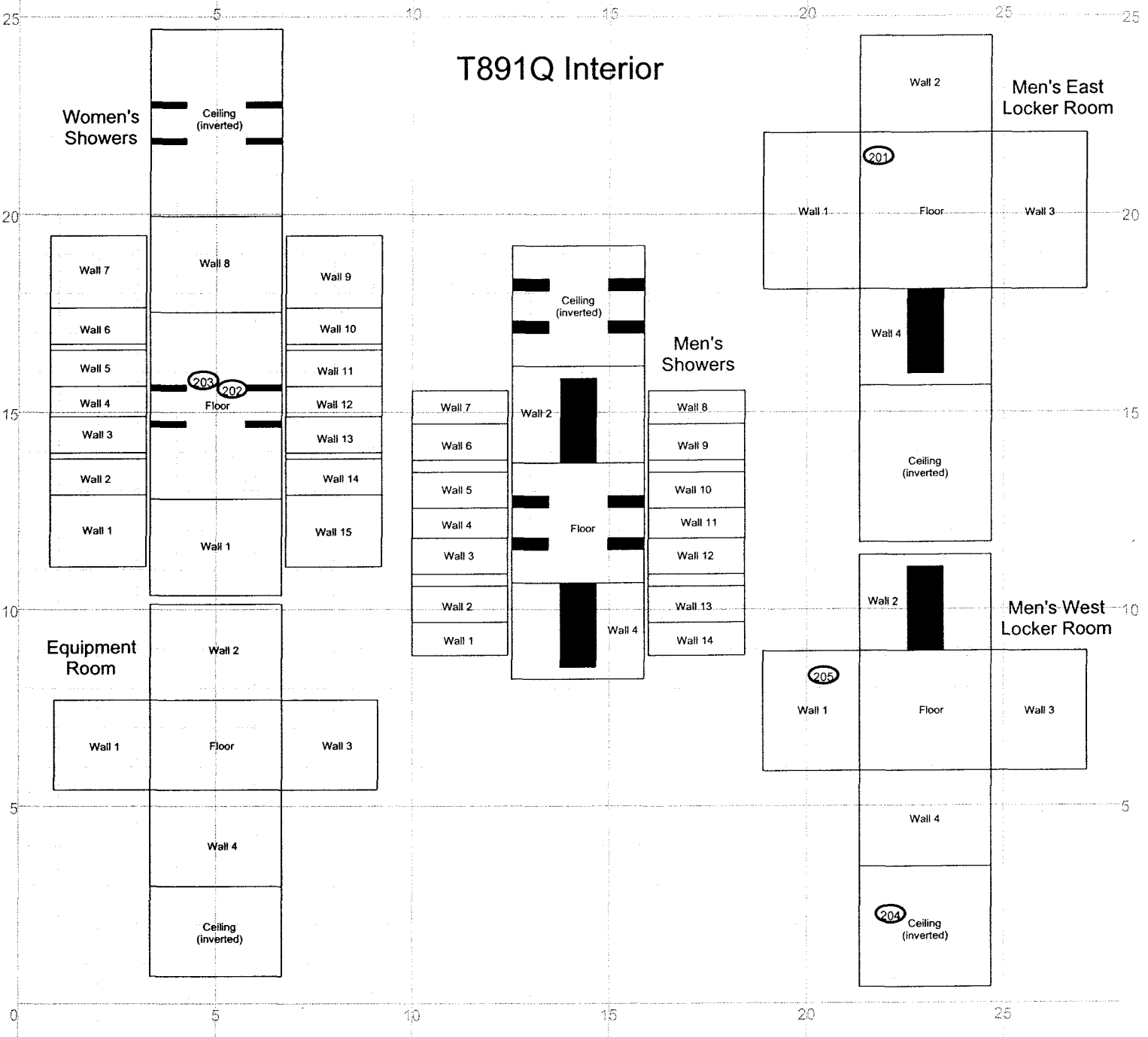
CHEMICAL SAMPLE MAP

Building: T891Q



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 15

0 METERS 5

1 inch = 12 feet 1 grid sq. = 1 sq. m.

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Rocky Flats Environmental Technology Site

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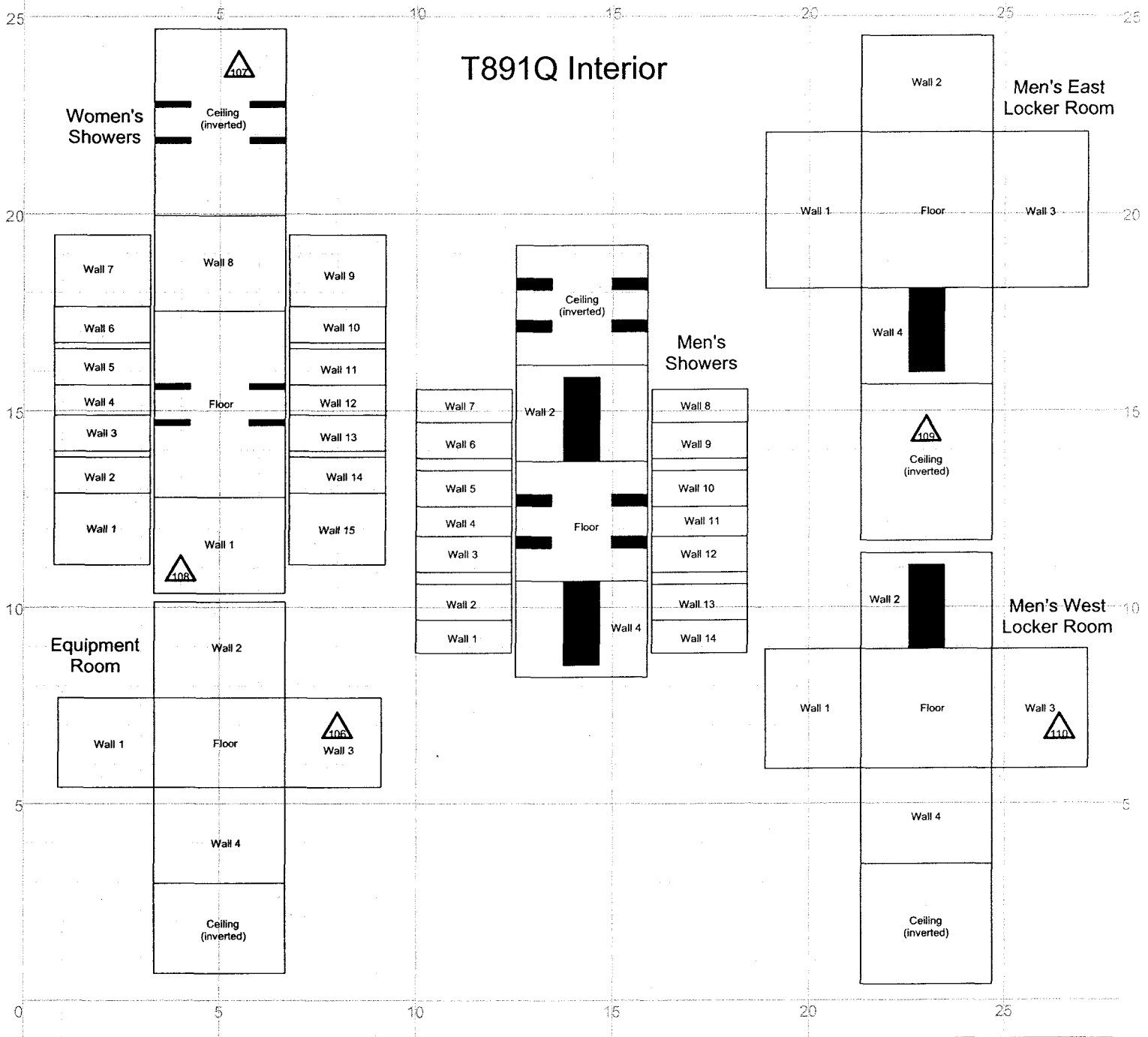
Prepared for: KAISER HILL

MAP ID: 02-0689/T891Q-IN-ASB July 9, 2002

CHEMICAL SAMPLE MAP

Building: T891Q



SURVEY MAP LEGEND

- (#) Asbestos Sample Location
- (#) Beryllium Sample Location
- (#) Lead Sample Location
- (#) RCRA/CERCLA Sample Location
- (#) PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 15

0 METERS 5

1 inch = 12 feet 1 grid sq. = 1 sq. m.

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Prepared by: GIS Dept. 303-966-7707

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Prepared for: KAISER HILL

MAP ID: 02-0689/T891Q-IN-BE July 9, 2002

ATTACHMENT E

Data Quality Assessment (DQA) Detail

ATA QUALITY ASSESSMENT (DQA)

VERIFICATION & VALIDATION OF RESULTS

V&V of the data confirm that appropriate quality controls are implemented throughout the sampling and analysis process, and that any substandard controls result in qualification or rejection of the data in question. The required quality controls and their implementation are summarized in a tabular, checklist format for each category of data – radiological surveys and chemical analyses (specifically asbestos and beryllium.)

DQA criteria and results are provided in a tabular format for each suite of surveys or chemical analyses performed; the radiological survey assessment is provided in Table E-1, asbestos in E-2 and beryllium in E-3. A data completeness summary for all results is given in Table E-4.

All relevant Quality records supporting this report are maintained in the RISS Characterization Project Files. The report shall be submitted to the CERCLA Administrative Record for permanent storage within 30 days of approval by the Regulators. All radiological data are organized into Survey Packages, which correlate to unique (MARSSIM) Survey Units. Chemical data are organized by RIN (Report Identification Number) and are traceable to the sample number and corresponding sample location.

Beta/gamma survey designs were not implemented for the Area 1 - T891P and T891Q facilities based on the conservatism of the transuranic limits used as DCGLs in the unrestricted release decision process. Stated differently, based on the well-established suite of actinides historically used at the RFETS, all of these actinides would emit alpha radiation in exceedance of the applicable transuranic DCGLs before other DCGLs would be exceeded for their respective Uranium species – Technical Basis Document 00162, Rev. 0, *Technical Justification for Types of Surveys Performed During Reconnaissance Level Characterization Surveys and Pre-Demolition Surveys in RISS Facilities,* corroborates the use of this approach.

Consistent with EPA's G-4 DQO process, the radiological survey design (for those survey units performed per PDS requirements) was optimized by checking actual measurement results (acquired during pre-demolition surveys) against model output with original estimates. Use of actual sample/survey (result) variances in the MARSSIM DQO model confirms that an adequate number of surveys were acquired.

SUMMARY

In summary, the data presented in this report have been verified and validated relative to the quality requirements and project decisions as stated in the original DQOs. All data are useable based on qualifications stated herein and are considered satisfactory without qualification. All media surveyed and sampled (radiological, asbestos and beryllium) yielded results less than their associated action levels and with acceptable uncertainties. However, the following anomalies are addressed as follows:

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- Elevated alpha activity was identified in T891P, survey unit G15-A-007, at initial survey locations 5,15, and 23 (93 dpm/100cm^2, 101 dpm/100cm^2 and 109 dpm/100cm^2 respectively.) These locations were re-surveyed after a 48 hour decay period and all re-survey results (71 dpm/100cm^2, 38 dpm/100cm^2 and 62 dpm/100cm^2 respectively) were below the $DCGL_W$ (100 dpm/100cm^2), confirming all radiological results meet unrestricted release criteria. The final PDS re-survey results are those listed in Attachment C Radiological Data Summary – PDS.

- Asbestos sampling for T891P was not performed as this trailer was constructed after 1994 and a subsequent walk down of the facility by a certified asbestos inspector visually confirmed no asbestos containing materials present in the facility.

Chain of Custody was intact; documentation was complete, hold times were acceptable (where applicable,) and packaging integrity/custody seals were maintained throughout the sampling/analysis process. Level 2 Isolation Control postings are displayed in affected areas to ensure no radioactive materials are introduced into the facilities. On this basis, the Survey Units and facilities identified in this RLCR (Area 1- T891P and T891Q) meet the unrestricted release criteria with the confidences stated herein.

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Table E-1 V&V of Radiological Surveys For Area 1 – T891P and T891Q

V&V CRITERIA, RADIOLGICAL SURVEYS		K-H RSP 16.00 Series MARSSIM (NUREG-1575)		
QUALITY REQUIREMENTS				
	Parameters	Measure	Frequency	COMMENTS
ACCURACY	initial calibrations	90%<x<110%	≥1	Multi-point calibration through the measurement range encountered in the field; programmatic records.
	daily source checks	80%<x<120%	≥1/day	Performed daily/within range.
	local area background: Field	typically < 10 dpm	≥1/day	All local area backgrounds were within expected ranges (i.e., no elevated anomalies.)
PRECISION	field duplicate measurements for TSA	≥5% of real survey points	≥10% of reals	N/A
REPRESENTATIVENESS	MARSSIM gridding methodology (Survey Units G15-A-007 and GT891Q-A-001)	statistical and biased	NA	Random w/ statistical confidence.
	Survey Maps	NA	NA	Random and biased measurement locations controlled/mapped to ±1m.
	Controlling Documents (Characterization Package; RSPs)	qualitative	NA	Refer to the Characterization Package (planning document) for field/sampling procedures (located in Project files); thorough documentation of the planning, sampling/analysis process, and data reduction into formats.
COMPARABILITY	units of measure	dpm/100cm^2	NA	Use of standardized engineering units in the reporting of measurement results.
COMPLETENESS	Plan vs. Actual surveys usable results vs. unusable	>95% >95%	NA	See Table E-4 for details.
SENSITIVITY	detection limits	TSA: ≤ 50 dpm/100cm^2 RA: ≤ 10 dpm/100cm^2	all measures	PDS MDAs ≤ 50% $DCGL_w$ per MARSSIM guidelines.* * RLC performed to PDS requirements.

Table E-2 V&V Of Chemical Results-Asbestos For Area 1 – T891P and T891Q

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
ASBESTOS	METHOD: EPA 600/R-93/116	LAB ---->	Reservoirs Environmental, Inc	
		RIN ---->	02D1363	
QUALITY REQUIREMENT		Measure	Frequency	COMMENTS
ACCURACY	Calibrations: Initial/continuing	below detectable amounts	≥1	Semi-quantitative, per (microscopic) visual estimation.
PRECISION	Actual Number Sampled LCSD Lab duplicates	all below detectable amounts	≥ 5	Semi-quantitative, per (microscopic) visual estimation.
REPRESENTATIVENESS	COC	Qualitative	NA	Chain-of-Custody intact: completed paperwork, containers w/ custody seals.
	Hold times/preservation	Qualitative	NA	N/A
	Controlling Documents (Plans, Procedures, maps, etc.)	Qualitative	NA	See original Chemical Characterization Package (planning document); for field/sampling procedures (located in project file;) thorough documentation of the planning, sampling/analysis process, and data reduction into formats.
COMPARABILITY	Measurement Units	% by bulk volume	NA	Use of standardized engineering units in the reporting of measurement results.
COMPLETENESS	Plan vs. Actual samples Usable results vs. unusable	Qualitative	NA	See Table E-4, final number of samples at Certified Inspector's discretion.
SENSITIVITY	Detection limits	<1% by volume	all measures	N/A

Table E-3 V&V Of Chemical Results-Beryllium For Area 1 – T891P and T891Q

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
BERYLLIUM	Prep: NMAM 7300 METHOD: OSHA ID-125G	LAB ---->	Johns Manville, Littleton, Co.	
QUALITY REQUIREMENTS		RIN ---->	02D1364	
		Measure	Frequency	COMMENTS
ACCURACY	**Calibrations** Initial	linear calibration	≥1	No qualifications significant enough to change project decisions, i.e., classification of Type 1 facility confirmed. All results were below associated action levels.
	Continuing	80%<%R<120%	≥1	
	LCS/MS	80%<%R<120%	≥1	
	Blanks - lab & field	<MDL	≥1	
	interference check std (ICP)	NA	NA	
PRECISION	LCSD	80%<%R<120% (RPD<20%)	≥1	
	field duplicate	all results < RL	≥1	
REPRESENTATIVENESS	COC	Qualitative	NA	
	hold times/preservation	Qualitative	NA	
	Controlling Documents (Plans, Procedures, maps, etc.)	Qualitative	NA	
COMPARABILITY	measurement units	ug/100cm^2	NA	
COMPLETENESS	Plan vs. Actual samples usable results vs. unusable	>95% >95%	NA	
SENSITIVITY	detection limits	MDL of 0.012 ug/100cm^2	all measures	

Table E-4 Data Completeness Summary For Area 1 – T891P and T891Q

ANALYTE	Building/Area/ Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)[A]	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Asbestos	T891Q (interior)	5 biased (interior)	5 biased (interior)	No ACM present, all results < 1% by volume	40 CFR763.86; 5 CCR 1001-10; EPA 600/R-93/116 RIN02D1363
Beryllium	T891P (interior)	5 biased (interior)	5 real (interior)	No contamination found at any location, all values below unrestricted release levels	40 CFR763.86; 5 CCR 1001-10; EPA 600/R-93/116 RIN02D1364 All results below 0.2ug/100cm^2
Beryllium	T891Q (interior)	5 biased (interior)	5 real (interior)	No contamination found at any location, all values below unrestricted release levels	40 CFR763.86; 5 CCR 1001-10; EPA 600/R-93/116 RIN02D1364 All results below 0.2ug/100cm^2
Radiological	Survey Area A Survey Unit: G15-A-007 T891P (interior and exterior)	25 á TSA (15 random/10 biased) & 25 á Smears (15 random/10 biased) 2 QC TSA 5% scan	50 real, 2 QC (26 interior/24 exterior)	No contamination at any location; all values below unrestricted release levels	No results above $DCGL_W$ or $DCGL_{EMC}$ action level (20 dpm/100cm^2 removable, 100 dpm/100cm^2 average, and 300 dpm/100cm^2 maximum). Elevated alpha activity was identified at initial survey locations 5,15, and 23 (93 dpm/100cm^2, 101 dpm/100cm^2 and 109 dpm/100cm^2 respectively.) These locations were re-surveyed after a 48 hour decay period and all re-survey results (71 dpm/100cm^2, 38 dpm/100cm^2 and 62 dpm/100cm^2 respectively) were below the $DCGL_W$ (100 dpm/100cm^2) confirming all radiological results meet unrestricted release criteria.
Radiological	Survey Area A Survey Unit: GT891Q-A-001 T891Q (interior and exterior)	25 á TSA (15 random/10 biased) & 25 á Smears (15 random/10 biased) 2 QC TSA 5% scan	50 real, 2 QC (36 interior/14 exterior)	No contamination at any location; all values below unrestricted release levels	No results above $DCGL_W$ or $DCGL_{EMC}$ action level (20 dpm/100cm^2 removable, 100 dpm/100cm^2 average, and 300 dpm/100cm^2 maximum).

[A] Number of asbestos samples required are an estimate only, final number of samples is at the discretion of the IH.